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THE MEDICAL JOURNAL OF AUSTRALIA

(With which "The Australasian Medical Gazette," and "The Australian Medical Journal" are incorporated.)

The Journal of the Australian Branches of the British Medical Association.

VOL. I.—3RD YEAR—No. 9. SYDNEY: SATURDAY, FEBRUARY 26, 1916. PRICE 6D.

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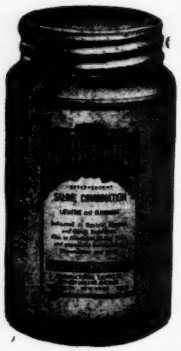

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INDEX TO ADVERTISEMENTS.

	Page.
AGENTS—	
Backhouse & Goyder	xiii.
R. Barr Brown	xiii.
AMBULANCES—Civil Ambulance & Transport Bgde.	xii.
CHEMISTS—	
J. Bosisto & Co.	ii.
Bristol, Myers Co.	ii.
Denver Chemical Manufacturing Co.	xiv.
Duerdin & Sainsbury	v.
Elliott Brothers, Ltd.	xii.
Felton, Grimwade & Co.	v.
Kephirin Co.	vi.
Kress & Owen	xi.
Menley & James	vi.
Parke, Davis & Co.	xvi.
Sulphaqua Bath Charges Co.	xiv.
CLOTHING—	
Lincoln, Stuart & Co., Pty., Ltd.	v.
Peapes & Co., Ltd.	ix.
COLLECTORS—Litchfield & Co., Ltd.	xi.
DISINFECTANTS—	
Anticalor	ii.
Carbolacene	iii.
Trusol	xv.
EXCURSIONS—Victorian Govt. Tourist Bureau	x.
FOOD PREPARATIONS—	
Allenburys' Diet	i.
Fry's Cocoa	vi.
Glaxo	vii.
Horlick's Malted Milk	xv.
Lactogen	viii.
Nestlé's Foods	iii.
GAS WATER-HEATERS—Metropolitan Gas Co.	xv.
HOTELS—Joynton Smith Management Trust	iv.
INSTRUMENTS—W. Watson & Sons	xiv.
MASSAGE, ETC.—Mr. and Mrs. Ollé	xiii.
NURSES	xiii.
District Nursing Association	xiii.
NURSES' JOURNAL—	
"The Australasian Nurses' Journal"	xii.
"Una"	xii.
RESTAURANTS—Tissot's	xiii.
SANATORIUMS—Sydney Sanitarium, Wahroonga	ix.
TOBACCONISTS—William Berry	xiii.
WHISKY—The Distillers' Corporation, Ltd.	xii.

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THE MEDICAL JOURNAL OF AUSTRALIA.

VOL. I.—3RD YEAR. SYDNEY: FEBRUARY 26, 1916. No. 9.

AID TO THE WOUNDED IN WAR: PAST AND PRESENT.[1]

By **James P. Ryan, M.D.,**
Chevalier of the Legion of Honour, Melbourne.

From the earliest times and through dire necessity, man had gained some rough experience in the treatment of injuries and wounds; for he was engaged in a constant struggle with nature to procure food for himself and his family, and to defend them from the numerous wild beasts by which they were surrounded. As population slowly increased, families of the same blood united to form tribes and clans, whose mutual interest at first kept them together; but as their numbers increased divergencies developed amongst them, and then disputes and covetousness brought them into collision and finally into war, which was thereafter unceasing. In this school of adversity some knowledge of the treatment of injuries was slowly acquired, but it was only after the lapse of countless ages that surgery may be said to have taken its place among the arts. That it had arrived at this stage some centuries before the Christian era may be assumed from the fact that the Hindu surgeon had in his armamentarium no less than one hundred different instruments. At a later date, among the Greeks and Romans, surgery was in a flourishing condition, and, during the time of the Emperors, men specially educated for the purpose practised their profession in Rome, and were attached as military surgeons to the legions in their various campaigns. Each legion had covered waggons, corresponding with our field ambulances, for the carriage of instruments and dressings, as well as for the transport of wounded men.

When the Roman Empire of the west at last succumbed to the repeated assaults of the northern barbarians, surgery, with so many other branches of painfully acquired knowledge, was swallowed up in the catastrophe. A long period of time rolled by in which Europe lay under the pall of the dark ages, and science and the arts were at their lowest phase. But with the revival of learning in the thirteenth and fourteenth centuries, and with the study of anatomy and the practice of dissection, which then came into vogue, surgery again raised her head and began to progress anew. But her progress was slow and halting, as may be gauged from the fact that only in the early part of the sixteenth century did the tying of arteries to control hæmorrhage come into practice. The discoverer of the ligature (or re-discoverer, for its use was certainly known to the ancients) was Ambrose Paré, a French surgeon, who gained much experience in the wars of Francis I., and thereafter amputation of limbs was made easier, safer and more humane, than when boiling oil, or pitch, or the actual cautery had to be applied to the raw stump to prevent the patient from bleeding to death.

We know that during the seventeenth and eighteenth centuries European armies were well supplied with surgeons, who were competent, according to their lights. They staunched bleeding by pressure, plugging or tying an important vessel; they dressed wounds with various kinds of salves, and in compound fractures of limbs amputation was generally employed. But their knowledge of disease was limited, and plague, small-pox and typhus dogged the steps of armies in the field and in camp, and erysipelas, gangrene, and various kinds of blood-poisoning decimated the ranks of the men who went into hospital. It is quite safe to compute that in those days, for every man killed in battle, at least five died of disease. Military hospitals were organized in France by Tully and Richelieu, temporary ones near the front, more permanent ones at the base, and we know that a similar service was established for British troops engaged in the campaigns in the Low Countries, for during the fighting here with France in the middle of the eighteenth century, an agreement was come to by the belligerents that such hospitals should be considered as neutral, and should not be molested.

During the Napoleonic Wars, ample provision was made by the French for the care of the sick and wounded. Baron Larrey, for many years head of the Army Medical Service, was a splendid organizer, as well as an able surgeon. He was much trusted by the great Napoleon, who generally gave him a free hand in making whatever arrangements he considered best for the welfare and comfort of the men. He established dressing stations in the field, and hospitals in the rear, with a supply of waggons for the transport of the wounded, but his efforts were to some extent nullified by the heavy toll levied by disease of various kinds. The state of our Army Medical Service during the Peninsular War was inferior in every way to that of the French, nor had much improvement in it taken place between 1815 and 1854, the date of the beginning of the Crimean War. This long peace of forty years left us wholly unprepared for the eventualities which then confronted us, and, when we were forced by the wily French Emperor into declaring war against Russia, the Army Medical Department, like other divisions of the Service, was found to deficient in everything except pluck. A fleet of British transports arrived off the coast of the Crimea one morning in the summer of 1854, and our troops were dumped down on the pebbly shore, without adequate preparation having been made for their reception. We need not wonder then that after the Battle of the Alma the wounded soldiers had a rough experience, both before and after they reached the poor tents

[1] Being a Lecture delivered at a Meeting of the Australian Health Society at Melbourne on November 24, 1915.

and bare huts which had been hastily run up for their accommodation. There were no trained stretcher-bearers to remove them from the field. This had to be undertaken by the bandsmen of the regiments, assisted by some of their comrades, and no ambulance waggons to transport them to the rear. When, finally, in a state of exhaustion, or collapsed from shock or loss of blood, they arrived at the base, they were lucky if they obtained anything beyond shelter from the elements, for such requisites as pillows, blankets, even mattresses, though they might be found in the hold of some transport, were often not available where wanted, in the hospital tent or hut. Then and for many months afterwards there was a shortage of food, clothing, medicines and medical comforts, the very things most needed for the sick and wounded. Of these articles there was really no lack, but they were stowed away on some ship in the harbour, and no one appeared to be aware of their exact whereabouts.

Nor was the number of surgeons sufficient to meet with the heavy demands made upon them, as soon as the winter cold set in. To meet this deficiency unqualified senior students, who were devoid of knowledge and experience, were taken into the service, and for the first few months of the war there was not a trained nurse in the British forces. The duty of looking after the sick and wounded was in the hands of orderlies, soldiers' wives, and a few charitable ladies who volunteered for the work, nearly all of them without training or experience in the duties which they had undertaken to carry out. The base hospitals at Varna, Scutari, and other Turkish towns were soon crowded to excess. They were dirty to a degree, and quite unventilated, for in those days fresh air and especially night air was generally considered a menace to the healthy, and a positive danger to those who were ill. This was, of course, long before Listerism came to purify our hospitals and banish bad smells, and before fresh air came to be recognized as necessary for good health. Is it any wonder then that under such unfavourable conditions, cholera, typhus fever and dysentery soon made their appearance, and exacted a heavy toll from the hapless inmates? The hospitals themselves were hotbeds for the development and spread of disease, which from the beginning was rife in them. On the walls or over the entrance to these establishments might well have been inscribed the notice placed by Dante on the gates of the Infernal Regions, "Abandon Hope, all ye who enter here."

In the midst of all this confusion, Florence Nightingale, like an Angel of Mercy, appeared upon the scene, with a message of Hope for the sorely afflicted soldiers, and she soon restored order out of chaos. She brought with her a staff of nurses and nursing sisters, and, in spite of strenuous opposition from the authorities, medical as well as military, proceeded to the task of cleaning out the Augean stables, and in a comparatively short period of time succeeded in carrying out so many alterations and reforms in the condition and surroundings of her patients as to add greatly to their comfort and reduce to some extent the death-rate among them. This continued to be appallingly high, for it depended on causes over which she had no control. In those days there was no germ theory of disease; it was not known that tetanus was caused by a micro-organism so minute as to be seen only by the higher power of the microscope; that plague was disseminated by the flea, and typhus fever by lice.

The man who fought at Pavia, or stormed the fortifications of Cremona, or in later times was wounded at Balaclava or Inkeman, more often than not lay where he fell for hours or even for days. When at length he was picked up and sent to the rear, and put into a base hospital there, or, worse luck, transhipped to Varna or Scutari, his fate was a pitiable one. In either case the hospital was sure to be overcrowded, comfortless, and reeking with the horrible odour of mortification and suppurating sores. He was probably bundled into bed in his dirty, blood-stained clothes, a bed from which, only a few hours before, a comrade, dead of cholera or typhus, had been removed. And here, on indifferent and badly-cooked food, with no comforts except his pipe and no nursing or attention beyond what could be given by half-trained orderlies, he was destined to pass the weeks or months until convalescence ensued, or until he was laid to rest among so many of his fallen comrades in the cemetery hard by.

It should also be remembered that the number of medical men at the seat of war was much below the requirements, that many of them were incompetent, that surgery was in a comparatively backward state, Listerism unknown, and preventive measures, such as vaccination against tetanus and gangrene, were undreamed of and undiscovered.

During the Crimean War, the French Army Medical Service was well organized and efficient, as compared with ours. The surgeons had at their disposal a staff of trained nursing sisters, stretcher-bearers and dressers, and ambulance waggons for the transport of wounded.

During the fifteen years which had elapsed between this period and the outbreak of the Franco-German war in the summer of 1870, no material alteration had been made in the service; and, although it was then competent enough to deal with smaller numbers, it was now wholly unprepared to cope with the much more difficult task of providing for the accommodation and treatment of the vast number of sick and wounded which were thrown on its hands. After the first battles on the north-eastern frontier of France, it became apparent that the service was not only badly organized, but was deficient in men and materials.

It happened that I was in Paris in the early days of the war, and witnessed the mad excitement of the populace, who imagined there was for their troops an easy and open road to Berlin. I volunteered for service, but was not accepted. Their equipment was complete, so it was said, and probably thought to be so by those in authority. But they were quickly undeceived, and, after the first defeats, the French Government were glad enough to accept whatever aid was proffered them by friendly foreigners. And so it came to pass that

in the early autumn I was attached as surgeon to one of the ambulances under the direction of Count Flavigny, which had its headquarters at Chateaudan. The town had been partly destroyed by the Germans, but a few of the suitable buildings left were transformed into hospitals. We were in the very centre of the country between Paris, Chartre and Orleans, over which so much fighting took place in October, November and December, and, as a result, our beds were soon filled with sick and wounded soldiers. The municipality agreed to bear the expense of the up-keep of our hospitals, and did everything possible to comply with our constant demands upon them, but, notwithstanding some outside help, we were often in want of the common necessaries of life. Such luxuries as sugar, coffee and tobacco sometimes failed us, and on one occasion our ingenious secretary made a blend of a little caporal tobacco with much dried coffee grounds, and night and morning carried round in a bag this poor substitute for the real article and economically filled each soldier's pipe with it.

In November and December, the great increase in the number of wounded, combined with inadequate means of transport, obliged us to establish other base hospitals in different localities, within a radius of some miles of our headquarters. Each one was in charge of a senior student, and was from time to time visited by one of our surgeons. These outlying hospitals generally occupied part or the whole of a château, and as trained nurses were not to be had, the care of our patients had to be entrusted to the ladies of the house and their servants, and bravely they responded to the call of duty, and faithfully did they carry out the onerous and disagreeable work imposed on them, for none in the world is more self-sacrificing in the cause of patriotism than the French woman.

In addition to regular work at the base hospitals, some of us followed the fortunes of the troops in the field. The duties were more exacting, and we were exposed more to dangers and hardships than our comrades at the base, but the life was more full of incident and far more exciting. We were accompanied by one or more ambulance waggons, in which were carried instruments, dressings, some food, and a rug of blanket for night covering. We kept as close as posible to the firing-line, and attended to the men where they fell, or in the farm-houses or villages to which they were brought. After this, first-aid was rendered, which generally consisted in the application of a charpie pad and bandage, controlling of hæmorrhage by pressure or tourniquet, or the setting of fractured bones, our waggons were filled up with the wounded and sent back to Chateaudan.

Charpie, at that time in general use in France as a dressing for wounds, was made of teased out linen or cotton stuff, not unlike cotton "waste" of the engine-room. Then, the making of charpie, like knitting of to-day, was the occupation of every woman in the land. In ordinary times it was manufactured out of more or less clean materials, but in the hurry and pressure of war, it was not possible to be particular in such matters, and surgical cleanliness, as we now know it, was not understood and could not be attained. And so it came to pass that the very dressings applied to protect wounds were themselves a common source of infection.

Often in the confusion of lost battle or hasty retreat, our supplies, once exhausted, could not easily be again renewed, and we had to make the best of whatever came to hand. The following by no means uncommon incident will illustrate the case. During the early days of December, 1870, the Germans, in strong force, were advancing towards Orleans, on the heels of the French, who were falling back behind the river Loire. Two of us were at the time engaged in Patay, a small town in the line of advance of the Prussians. Some fifteen hundred French troops made a gallant attempt to defend the place and impede the onward march of the enemy. In this they were more or less successful, but, after the town had been partly destroyed by the enemy's guns, they were forced to retire, and the Germans came into possession. It is not easy to picture the condition of things which then existed there. The little town was in ruins, and burning; the population had luckily fled; wounded soldiers lay around in every corner that could afford them shelter from the bitter cold of the season, and neither food nor supplies of any kind could be obtained. The French army surgeons retired with their troops, and two of us and a French doctor of the town were left, without resources of any kind, to look after some hundreds of wounded men. Some of these were comparatively well off, in as much as they had beds to lie in in the houses left standing, but a large number, less fortunate, had to be laid on the stone floors of the town hall and parish church, sparsely spread with straw, without covering of any kind beyond their overcoats. The sacristy of the church was turned into an operating theatre, and, here, during the great part of the night, and by the uncertain light of a few candles, we were engaged in performing operations that were absolutely necessary. Bandages and dressings were improvised out of sheets and pillow-cases, cleaned by being wrung out of hot water, and to produce some degree of insensibility in those to be operated on, we had to dose the poor fellows with brandy and opium, for our small remaining stock of chloroform had given out.

Earlier in the evening we had gone out in a cart to attend to some wounded lying on the plains or in farmhouses at some distance from the town. Many, who were exposed to the inclemency of a winter night, we got under cover, but, beyond the application of light dressings, and supplying them with drinking water, there was little else we could do for them. Some there were who were not discovered and brought in until next day, and not a few of them died from exposure. The last of the Germans passed through on the way to Orleans, and we were enabled to return to our headquarters and replenish our supplies of dressings. But, instead of going back to Patay, we followed up the retreating French forces, and overtook the rearguard near a place called March-Noir. Here we received orders to remain behind and look after the wounded, as

the regimental surgeons had to proceed with the troops.

Many of the wounded lay out where they fell, and our first care was to get them under cover in the farmhouses and villages on the fringe of the forest, and apply first dressings. In this work we were occupied throughout the greater part of the night. In the morning, our supplies having given out, we returned to our headquarters, where a great increase in the number of wounded there taxed our resources to the utmost, and claimed all our services for the next few days. The condition of the wounded thus left in the wake of a retreating army was pitiable in the extreme. There was no organization for collecting and transporting them to base hospitals. This had to be undertaken voluntarily, and with inadequate means, by the people residing in the neighbourhood, and was a slow process. And so it came to pass that some of them, grievously wounded, lay for days in outlying, deserted farmhouses, neglected, forgotten, without food or even water to moisten their parched throats.

In the foregoing I have made an attempt to picture to you the unfavourable condition and surroundings of the wounded soldiers in past wars, and I have illustrated this from my own personal experience during the Franco-German campaign of 1870-71.

I will now turn to the soldier of to-day, and see how he fares, under the more fortunate circumstance of modern warfare. In looking back over the sixty years which have elapsed since the Crimean War, three remarkable facts stand out prominently to mark the change between the old order of things and the new. The first is the greatly improved system of organization of the Army Medical Service of civilized countries. The second is the introduction of the antiseptic system of surgery, and the third the discovery of means by which certain diseases can be prevented. Pasteur, the Frenchman, laid the foundations, and the British surgeon, Lister, built upon them a system of treating wounds which has completely altered the outlook in surgery, and saved an untold number of lives. After prolonged investigations on the subject of fermentation and putrefaction, Pasteur came to the conclusion that many of the common diseases of plants and animals were caused by certain minute organisms. Lister then took the matter in hand, and after numerous experiments extending over several years, established the fact that some diseases of the human kind were also due to similar micro-organisms, and that if these could be kept out of, or destroyed in, surgical and other wounds, diseases, such as erysipelas, septicæmia and hospital gangrene could not occur. To show you what a saving of life has taken place through the adoption of Listerism, I will mention one or two facts. In my student days, opening the abdomen was always considered a most hazardous procedure, and the mortality after ovariotomy was about 95%. At the present time, if the operation is performed by a competent surgeon, not more than five people die in one hundred operations, and the expert can have a peep at the liver or kidneys with almost as much safety to his patient as an eye specialist can examine the optic disc or retina.

The study of bacteriology and the knowledge obtained through it of the causation of many common diseases, have led to the adoption of preventive measures, only now in the initial stage, but which in the future will go far towards eliminating such hitherto fatal diseases as typhus, plague and tuberculosis. In the past the first two were most fatal to soldiers in the field and camp; but no one then dreamed that both were caused by the bites of insects.

But in no way has the soldier of to-day gained more over the soldier of the past than in the great advances made in the practice of surgery and in preventive medicine. Compound, comminuted fractures of the arm and leg bones, and such wounds are numerous in war, were then generally treated by amputation, and yielded a high mortality. Nowadays, under such circumstances, amputation is the last thing thought of, and a considerable proportion of the patients recover with useful limbs. Injuries of the brain and penetrating wounds of the abdomen, though still fatal enough, are much less so than was formerly the case, when the vast majority of those suffering from such wounds met with a fatal termination. So heavy were the losses in the French ambulances and base hospitals from infection after operations, that for a time surgery was almost paralysed.

One of the epidemic diseases which was widely prevalent among the French during the winter of 1870-71, and which caused a heavy mortality, was small-pox. It was virtually unknown among the Germans, and no Prussian soldier died of it during the course of the war. What is the explanation of its different behaviour in two classes of men living under much the same conditions? The solution is easy enough. Among the French, between conscience clauses and other subterfuges, vaccination had not been strictly enforced. The German soldiers were vaccinated to a man.

Early in the war the Commissariat Department broke down, so that the men were badly fed and poorly clothed, and indifferently protected from the cold of a long and severe winter by the miserable bell-tents in which they were lodged. The medical service was not well organized, and was generally short of men, as well as of materials. Base hospitals, when they existed, were not linked up with the dressing stations near the firing-line, as is now the case, and stretcher-bearers never seemed to be where they were most required. The result of the lack of means of collecting and removing the fallen promptly to places where they could receive some attention was that many, who should have recovered, succumbed to cold and exposure.

As an example of what might and did often occur, I will mention the case of General de Sonis. He was seriously wounded at Loigny on the evening of the 2nd of December, and lay out without even an overcoat to protect him until the next day, when he was discovered and brought in. His life was saved, but he lost a leg.

The Franco-German war may be said to mark the boundary line between the past and the present, the old and the new. Henceforward, the introduction of the antiseptic system of treating wounds, the great advances made in operative surgery and the employment of preventive measures for the control of disease have worked a revolution in the methods of treating sick and wounded soldiers. It is safe to predict that when the history of the present war comes to be written, it will be found that, instead of deaths from disease greatly out-numbering those from shell and bullet, as has hitherto been the general experience, the reverse will be found to be the case.

A comparison between modern methods of dealing with the sick and wounded in warfare, and the older ways of two generations ago, will show clearly what great advances have been made in the interval. The improvement is due to several causes. First to better organization in the Army Medical Service, but more largely still to the introduction of Listerism, to recent advances in operative surgery, to a better and larger knowledge of hygiene, and to the discovery of means by which certain diseases can be prevented.

It is a curious fact that in the present war the antiseptic method of treating wounds has been less successful than was expected and than it always is in the wounds made by the surgeon in civil practice. In trench warfare, such as is now carried on in France and Flanders, the skin and clothes of the men are constantly contaminated with clay and mud, containing dangerous micro-organisms. In serious injuries, such as those caused by fragments of shell or shrapnel, portions of the skin and clothing are carried with them into the deep tissues, and unless antiseptics are applied at once and in dilutions strong enough to destroy or inhibit the growth of these microscopic plants, infection is likely to take place, and may lead to fatal results. The open and free drainage system of treating wounds, at one time in vogue, has been lately re-introduced by Sir Almroth Wright, and this, in conjunction with the complete excision of damaged tissues and the rational use of antiseptics, is proving successful.

In old days, though the open system was in common practice, its rationale was not known. It is now recognized that the blood itself is able to destroy, better than anything else we know of, most of the organic poisonous substances which are known to invade the tissues of the body and cause disease. By this method the wound is kept constantly bathed in the blood lymph, which exudes from the raw surface of the wound, penetrates into every little crevice and irregularity of and disinfects every spot reached. At the same time, its flow is stimulated by laving the wound with a 5% solution of chloride of sodium, and this increased flow tends to sweep the offending matter away as fast as it accumulates.

I will now turn to consider in more detail the means employed in the present terrible war for aiding the sick and wounded. It may be asserted with confidence that in this respect the errors and shortcomings of the past have been corrected or removed, and that almost everything for his advantage and that can minister to his comfort is done for the wounded soldier.

The arrangements for carrying on this work are in the hands of the Army Medical Service in the first place, assisted by such bodies as the Red Cross Society, which here, as well as in England, has done admirable work, and by numerous ambulances and hospitals, equipped and financed by private individuals or by sections of the public.

Each soldier goes into action with a light dressing in his pocket, which may be applied by himself or a comrade. First aid is rendered by the regimental surgeons, who, with a corps of trained stretcher-bearers, establish dressing-stations under some cover, as close as possible to the firing-line. At these advanced posts only necessary and temporary aid can be given, and with as little delay as possible the wounded are placed in horse waggons and removed from the firing zone, to divisional field ambulances established or waiting in places of comparative safety close by. Here the injured may be examined at leisure, and have the necessary dressings applied. When this has been done and they have been supplied with light refreshments, they are transferred to motor ambulances and carried without delay to the next station in the rear, the Casualty Clearing Hospital. This may be at a distance of from two or three to 20 miles from the firing zone, and is generally established in a suitable building close to a railway station. Such a hospital may contain from 50 to 300 or 400 beds; it has a full staff of surgeons and nurses, and arrangements and appliances for the treatment of every kind of case. Here, operations are performed and other important work is done, before the patients are sorted out and sent by train to base hospitals, where treatment may be continued, until they are at length transferred to convalescent homes, or sent back to the ranks. The last link in this chain of establishments for the treatment of sick and wounded soldiers, is the convalescent home, and here they are kept until they are finally discharged as unfit for duty, or until they are able to rejoin the ranks. In addition to this succession of aid posts through which the wounded soldiers are passed, there are a few rest homes, where the wearied, war-worn, but unwounded men are housed and cared for, until fit to return to the trenches. They are doing admirable but unheeded work, and save many men for the ranks, who would otherwise go under.

Base hospitals may be in Paris, or Boulogne, or in London or Edinburgh. They are either general hospitals where all kinds of cases are admitted, or special hospitals, where only certain classes are treated, such as affections of the nervous system, infectious diseases, etc. One of the great advantages of this kind of segregation is that the patients in these hospitals are under the observation and treatment of experts, and derive all the advantages that result from such an arrangement. Men in the highest ranks of the medical profession are to be found at various points in the war-zone, and the soldier of to-day has

the inestimable advantage of getting their advice and assistance, which, under ordinary conditions, could only be obtained by persons with ample means.

Many of these base hospitals are planned on quite a magnificent scale, such as the King George Hospital, London, with 1,650 beds and special departments for diseases of the eye, ear, throat, etc., laboratories, X-ray and electric rooms, and a medical and surgical staff numbering 149. In Paris and its neighbourhood, the British Military Hospital at Versailles, the American Ambulance in the New Pasteur Institute at Neuilly and hospitals (French and British) in the Grand Palais, Hôtel Majestic and other large hotels in and near the Champs Elysées are worthy of mention. The American Ambulance at Neuilly, with 500 beds and a large staff of surgeons and no less than 80 trained nurses, is magnificently equipped with the newest aids and appliances for the diagnosis and treatment of medical and surgical affections.

A women's ambulance occupied the new Claridge's Hotel in the Avenue of the Champs Elysées. It was established and the entire working of it was carried out by English ladies, as doctors and nurses. I was taken through the wards by the Senior Lady Physician, and, as far as I could gauge from this visit of inspection, I should say that the French soldiers, who were so fortunate as to get in, had reason to be thankful for their good luck. They were lodged in a palatial building, the beds and bed coverings left nothing to be desired, the sanitary arrangements were good, the food supply was excellent, and there appeared to be no end to the cigarettes and other comforts and luxuries with which they were supplied. And the same story may be told of most of the other hospitals, French and British, which I visited in France. During one of my tours of inspection through the Majestic Ambulance in Avenue Kleber, a charming afternoon entertainment, recitations and songs were given by some members of the Paris Opéra Comique, and highly appreciated by the audience. Perhaps I should say by those of them who understod the language, for in the big ward for convalescents in which the entertainment was given, were Turcos and other African troops, who had little or no knowledge of French, and who probably comprehended as little the musical part as they did the recitations.

Some years ago, while on a visit to North Africa I spent a couple of days at Karrouan, an inland city of Tunis, seldom visited by foreigners. In a Moorish café I heard some singing by one of the city's musical stars. He accompanied himself on an instrument like a small guitar, but sang in so low a tone as to be inaudible at a short distance off. Through an interpreter, a young Arab, who talked bad French fluently, I asked him to sing up, but apparently this he could not do. I asked those present in the café if they would care to hear an English song, and, as he said they wished it greatly—the Moors are a polite people—I gave them "Killarney" in the fullest tone I could muster. I do not know if they were pleased, but I felt sure they were astonished, judging by the expression of their faces and by that on the faces of the huge crowd which had assembled in the street outside. And so it was with the Arab soldiers in the Hôtel Majestic when listening to the singing of the members of the Opéra Comique. They were astonished; whether they felt any other emotion I do not know.

When I was in Boulogne early in the winter of last year, the city presented the appearance of a great fortress or camp, dominated by the Red Cross. Soldiers of various nationalities—French, British, Algerian, Indian—were met with at every hand's turn, and motor-cars, motor-'buses, and ambulances filled with soldiers and wounded or stores, rapidly passed to and fro along the narrow streets of the town. Down along the water-front and near the railway station were a dozen base hospitals, some receiving patients from the front, others transferring many of theirs to a hospital ship in the harbour for transport to England. She, like so many others of her class, was painted white all over, with a large Red Cross on either side, midway between the rail and the water line, as well as on a flag at the masthead. There was no mistaking her for anything but what she was: a hospital ship.

I spent a day at the Australian Voluntary Hospital, Wimereux, on the heights above and a few miles out of the city. The situation of the large hotel which it occupied was, from a sanitary point of view, ideal. On high, open downs, it faced a golf ground, and was freely open on two sides to the winds from the sea. Ample provision had been made for the reception of three hundred patients, and though at the time of my visit work was somewhat slack, a few weeks previously the medical and nursing staffs had been taxed heavily to meet the demand made on their time and energies. They possessed a large transport service. I fear to mention how many motor vehicles of all kinds they had in their garages and yards, and I hesitated to ask Colonel Eames, the medical officer in charge, how he had come by them. The hospital was well equipped and admirably conducted, and, considering the comparatively short period since its establishment at Boulogne, it had performed excellent work, and was a credit to the country whose name it bore.

In considering the different circumstances of the soldier in the present and in past wars, we must remember that the conditions of warfare itself have in the meantime entirely altered. The rapid movements and changes of formation of armies of old too far apart to enable them to watch each other minutely, the surprises so common in the ebb and flow of battle, the hurrying of guns from one point of vantage to another, and the brilliant charges of cavalry added much to the pomp and glory of war, but were detrimental to the welfare of the wounded soldiers. It meant their being distributed over wide areas of ground; it greatly hampered the work of field ambulances in collecting and transporting them to places of safety, and it was a serious obstacle to the establishment of advanced dressing stations. Now the opposing armies, after some preliminary skirmishing for positions, sit down in front of one another, dig themselves in, and wait on Providence

and big guns. Luckily, the monotony of such an existence is varied from time to time by fierce raids on the enemy, in which fighting at close quarters and the use of the bayonet are prominent features. The immobility of great armies in the present war is certainly favourable to the wounded, who can be picked up and carried to a dressing station with the least possible delay. For in this matter time is of the utmost importance. In cases of serious hæmorrhage, which luckily is rare, and in wound infections such as those of tetanus and gas gangrene, the value of early treatment cannot be overrated. The fact is so well known that many risks are constantly taken by the surgeons and stretcher-bearers, and they are frequently courting death in their endeavours to get at their wounded comrades and carry them to the rear. If the soldier is seen by the surgeon within an hour or so, or even a few hours of being struck down, and if the wounds are thoroughly disinfected and the patient injected with appropriate vaccines, there is an excellent chance of preventing such diseases as gangrene and tetanus, which, when they do occur, are amongst the most fatal known to us.

In the old time European wars, plague and typhus caused the heaviest mortality. They are essentially dirt diseases, and under improved sanitation have almost disappeared. During the Franco-German and South African wars, typhoid fever was most prevalent amongst the troops, and caused a large number of deaths. It, too, has gone the way of typhus, and as a camp disease is little heard of now. This change for the better has been brought about by the discovery of a method of vaccination somewhat similar to that used against small-pox, by which the patient is, for a time, rendered immune from the disease. In the present war, typhoid fever has played an insignificant part, but tetanus and gas gangrene, known well enough to the medical profession, but hitherto little heard of or noticed in warfare, suddenly made their appearance among the allied troops on the Franco-Belgian frontier, and at first caused a heavy mortality. Very soon, however, an anti-serum was discovered which has proved of considerable value as a preventive agent in these diseases. There can be no doubt that by means of modern discoveries in preventive medicine, improved methods of sanitation, and better and more extended knowledge of hygiene among our military surgeons and soldiers, the high mortality from disease in war has been greatly reduced.

An appeal to statistics would bring out this point clearly enough, but statistics of the various causes of death in the war now in progress are not as yet available, therefore no comparison can be drawn between mortality from disease in the past and now, or the comparative death-rate from arms and wounds and from disease. Besides, as Schopenhauer, and no doubt others, have said, statistics can be made to prove anything: even the truth.

You will therefore have to accept this statement for a fact that many of the diseases which in past wars were so prevalent and so deadly, are now but little heard of, and that others, such as typhoid, tetanus and gas gangrene can either be prevented or rendered less fatal by employment of the appropriate vaccines. Compound, comminuted fractures of the bones of the leg were and are common enough. There were usually treated in the past by amputation. But whether or no this was done the mortality in such wounds was always high. Nowadays, amputation is seldom resorted to, and, thanks to Listerism, the broken ends of the bones are maintained firmly in position by small metal splints fixed in place by screws, supplementing or replacing the older method of applying large splints to the outside of the limb. The results are, as a rule, highly satisfactory, for the patient not only retains his life, but a useful leg as well.

It would occupy more time than is at my disposal to enumerate, much less to describe in detail, the various new and improved methods of diagnosis and treatment which modern science has put at the disposal of the surgeon for the benefit of the wounded. None of them was available in the wars of the past to which I have alluded just now, and in this, as well as in many other respects, the soldier of to-day scores an advantage over his less fortunate brother of the past. The perfectly organized system of transport of the wounded, British and French, which is employed at the western seat of war, is in striking contrast with the older methods. The injured soldier makes his first short journey in a horse-drawn waggon to the field ambulance. Thence in a motor to a base hospital or to a railroad, where he is placed in an ambulance train, provided with every comfort and under the charge of a surgeon and trained nurses. In this way the transit from the front to a stationary hospital is made with the least possible loss of time, and with the greatest comfort to the patient. Among the French, water carriage, by means of river barges, transformed into temporary hospitals, is often employed. The larger ones are under the direction and control of a surgeon, with a staff of nurses, and are completely equipped and provided with everything necessary for the lodgement and treatment of from 25 to 50 patients. What havens they must appear to the worn-out, nerve-wracked soldier from the trenches, who now, for the first time for many weeks, is provided with a change of clothing and put into a clean bed. A French officer who had had this experience, assured me that what appealed to him most, after the constant and awful noises of the firing-line, was the perfect quiet and rest on board.

A new and important addition to our means of aiding the sick and wounded is the movable laboratory. It is a motor waggon fitted up with the necessary appliances and chemicals for making a minute examination of the fluids and tissues of the body, as well as for the preparation of vaccines for diagnosis and treatment. Its special and important work is in the hands of an expert, who may have under him one or more assistants. The motor laboratory has this great advantage that, without loss of time, it can be moved to any point where its services are required.

Many of the larger base hospitals have special departments for the treatment of diseases of the eye, ear, throat, etc., and most of them equipment for utilizing electro-therapeutics and an X-ray room, which is in great demand for the diagnosis of deep-seated injuries. For example, a man is shot through the elbow, and a shadow photograph is taken of the damaged joint, which at once discloses the exact nature of the injury. In another case, a bullet has entered the chest and lodged there. By means of an X-ray photo. its position is at once revealed. There is a small wound in the eye-ball. It is suspected that a piece of iron or steel remains within the eye. Under X-rays its position is defined. If not removed, loss of sight of one or both eyes may ensue. To extract a foreign body from the interior of the eyeball was, until recent times, most difficult or impossible. Nowadays it can be easily done by means of the magnet, and useful sight restored to many of the patients.

Typhoid fever, which caused such losses and disablement in old wars, and, indeed, in so late a one as the Boer War, has been notably absent in epidemic form from the present one. This immunity has been gained by inoculating the soldiers with antityphoid serum before sending them to the front, and the comparatively few cases that were noted occurred for the most part among the troops who refused to submit themselves to the process.

Without entering into further details regarding the arrangements made for the welfare of the sick and wounded in modern warfare, I must not conclude without referring to the comforts and luxuries by which they are surrounded. In return for the sacrifices being made by our brave soldiers in the trenches, it is only fair to recognize that a grateful public has and is doing everything possible to ameliorate their lot, and to surround them and the convalescents at the base with material comforts of every kind. From the beginning and all through the present deplorable war, our troops have been better fed and clothed than those of any army which has hitherto taken the field. This is due to the foresight and splendid organization of the Army Supply Department, in the face of unprecedented difficulties, in fitting out and providing for the largest host that ever left the shores of Great Britain.

In addition, our men have been well and constantly furnished with such luxuries as tobacco, cigars, cigarettes, cakes, jams and butter, not to mention underclothing, mufflers, socks and gloves, lovingly worked by mothers, wives and sweethearts for their dear ones at the front, many of whom, alas, will never wear them.

In fact, almost everything that can minister to creature comforts is thought of and sent to them. Listen to this extract from a letter of a surgeon to a transport: 'Just before leaving Egypt, General Williams advanced to me £200, with which to purchase anything we were short of. I obtained mosquito curtains, fly whisks, and other things which might be useful to the comfort of our men. From a Red Cross Depôt recently established here (in Egypt) I have obtained white shirts, cotton shirts, undershirts, slippers, pyjamas, bandages, crutches, walking-sticks, bovril, and eau de Cologne.''

When I think of old times and the slight acquaintanceship which the soldier of those days had with such luxuries; how often, wet, cold and exhausted from long marching, he had to make his frugal supper on half-cooked rice; and lie down for his night's rest in inch-thick mud, I bemoan his fate, while bearing witness to his courage and endurance, and I rejoice in the more fortunate circumstances of the soldier of to-day.

Reports of Cases.

CASE OF BULLET WOUND OF SKULL.

By **Captain C. L. Chapman,**
No. 5 Field Ambulance, Gallipoli.

Having listened to Colonel Sir Victor Horseley on the occasion of his last visit to this part of the front, when he addressed some valuable remarks to Medical Officers about the early operative treatment of skull wounds, I determined to act on the advice as soon as a case presented. Private ——, 26th Battalion, was brought into this ambulance at 6.30 a.m., November 30, 1915, having been shot in the head half an hour before, whilst looking over the parapet. The patient was lying curled up on a stretcher in a state of marked irritability. His pupils were dilated, the pulse-rate was 56. He had no ability to answer questions. A round bullet wound was found in the centre of a large hæmatoma. The wound was in the left parietal region, in the line of the auditory meatus and 4 inches from the middle line.

The head was shaved and thoroughly scrubbed with a mixture of 1 part of petrol to 3 of spirit.. The wound was cleansed with 1 in 1000 perchloride of mercury, and enlarged to allow the clot to be turned out. Some splinters of bone were removed, and wet perchloride dressing was applied, and the patient returned to the tent.

Two hours later his pulse-rate was 48, the breathing was stertorous, and the pupils were fixed. There was still some response to sensory stimuli.

It was decided to operate. Under chloroform administered by Major A. H. Mosely, a semi-circular flap surrounding the wound aperture was reflected downwards. Much clot and brain matter escaped. On cleaning up no fissuring of the skull was found, but constant bleeding was taking place from the hole.

The hole in skull was enlarged with gouge forceps, and one of the larger branches of the posterior division of the middle meningeal artery discovered to be the source of bleeding, was ligatured with catgut.

A seeker was passed gently under the *dura mater*, and no spicules of bone were felt. The whole field was well cleansed with 1 in 500 aqueous perchloride of mercury solution and cyanide gauze soaked in this solution was applied gently on the brain, firm pressure being exerted on the bone by means of a ring of gauze. The dressings were then applied. No attempt was made to find the bullet. After operation the pulse rate was 68, and the breathing was normal. The pupils were active.

The wound was dressed twice next day, and once on succeeding days, and cyanide gauze, soaked in 1 in 1000 perchloride of mercury solution used. Calomel (gr. iii.) was given every second day from the start. This kept the bowels well open: light milk diet was ordered.

On the second night after the operation the patient had two twitching seizures, for which bromide of potash (gr. xxx.) was given, and continued for three nights. At the end of 16 days the patient was sent to the casualty clearing station, quite well, except for some slight loss of memory.

The highest temperature recorded was 100° F., on the day after the operation. The pulse-rate varied from 60 to 68 during whole time after operation.

The patient's memory began to return the day following the operation. He now has all functions, reading, writing,

speech, except slight loss of power to utter words which he can write.

From the position of the wound and the symptoms, the bullet would appear to have gone into the posterior part of the left superior temporal gyrus. The X-ray picture, which we have no means of obtaining, and the future of this man should be interesting.

The following points are worthy of notice:—

(1) This man was operated on in a tent, the ground being very dusty, and very little water available, yet satisfactory results were obtained. The surgeon need therefore never be afraid to give these cases the only chance they have by immediate operation.

(2) Petrol, 1 part, and spirit 3 parts, recommended by Colonel Horsley, is an admirable cleanser for the head, being a fat solvent.

(3) The flap incision, which avoids the wound, gives the great advantage that the contaminated wound can be kept well away from the surface of the brain, thereby obviating all risk of septic contamination. Sutures are not necessary. The flap heals up well by granulation.

(4) As Sir Victor pointed out, no fear need be entertained of using strong antiseptic (1 in 500 corrosive sublimate) on the brain, as was done in this case.

I am much indebted to Staff-Sergeant Alex. Wilson for his admirable nursing of this case.

Reviews.

GENERAL PHYSIOLOGY.

General physiology treats of what Burdon Sanderson defined as "the study of the endowments of living material." It seeks to connect physiological properties with physical and chemical processes, and to study how the biological architecture of the organism makes possible those phenomena which are termed the functions of the animal body. It sheds the illumination of the exact sciences on the changing activities of the live substance. In some treatises the scope of general physiology is restricted to the investigation of the characters of unicellular forms, and of the simple tissues of multicellar animals.

Professor W. M. Bayliss informs us in the preface that this book[1] was written to make available to those, who have not the same opportunity as himself, the results of his reading for the preparation of several courses of lectures on these topics. He must be congratulated on the fruit of many hours of patient delving in the garden of scientific literature. His numerous researches on a wide range of subjects have enabled him to apportion a just value to what he has garnered from other sources. A ripe, critical judgement has led him to take a balanced position between contending views, and to prepare just and instructive summaries.

The first chapter deals with the fundamental qualities of living matter, as revealed by the study of the protoplasm of the amœba and of other simple forms of life. It is followed by chapters on energetics, surface action, the colloidal state, the permeability of membranes, and the properties of the surface of cells, osmotic pressure and on electrolytes. These chapters deal briefly with the more important facts, so far elicited as to the nature of these processes. They contain a summary of the attempts made to explain various physiological activities by the general laws of physics. Each chapter is closed with a summary of its contents. The student is provided with an appendix to each chapter, containing references to the more important sources of information for further study on the subject matter of the chapter. The book continues with an account of the general characters of nutrition, and of enzymes and catalysts. The treatment of the action of ferments is on the same lines as the author's monograph on the same subject. The remaining four hundred pages are concerned with strictly physiological matters. Secretion, digestion, excitation and inhibition receive attention. Special mention may be made of the articles on the contractile tissues, tonus, reflex action and receptor organs. The final chapters consider the subjects of respiration, of the circulation of the blood and of hormones, drugs and toxins.

The aim of each chapter is to expound the fundamental laws regulating the actions of the various tissues and organs. In consequence, much less attention is devoted to the account of the purely physiological properties of the phenomena. The result is that the articles are refreshing and stimulating, owing to their novel presentation. This method has great advantages. It emphasizes the small number of primary agents that effect and modify physiological properties. It also brings prominently into view the unity of the different functions. Cellular activity is the mainspring on which all the phenomena of life depend for their expression.

This work is written for the use of serious students. It presents to us the conception of vital processes held by one of the most distinguished exponents of British physiology. In every case these vital processes exemplify the operation of physical and chemical phenomena. No better guide to the present standpoint of the investigator of vital activities exists in the English language. The book will hardly be suitable to the educated medical practitioner anxious to possess some acquaintance with the progress of physiology.

One feature of the book requiring special commendation is the insertion of a series of reproductions of portraits, engravings and photographs of those who have contributed to the advancement of physiological knowledge. The few words of explanation of the origin of the figure are full of human interest. Science is impersonal, yet as long as science is dependent for its prosecution on personal exertion, we shall ever associate each scientific discovery with its exponent.

[1] Principles of General Physiology, by William Maddock Bayliss, M.A., D.Sc., F.R.S., etc., 1915. London: Longmans, Green & Co.; Royal 8vo., with 259 illustrations; pp. 850. Price, 21s. nett.

University Intelligence.

TASMANIA.

At a meeting of the Senate of the University of Tasmania, held on February 16, 1916, it was determined that two new subjects be added to those included in the Junior and Senior Public Examination. In the former case, the subjects are business practice and book-keeping and in the latter book-keeping and shorthand. Special examinations of the standard of the Junior and Senior Public Examinations are to be held in the first week of each term, and four new sections have been introduced into the regulations for this purpose.

The Senate also amended the regulations dealing with the tenure of University Scholarships, in order to allow any candidate who wins a scholarship to postpone the commencement of the tenure if he or she desired to do so.

It was also decided that not more than three subjects, which formed part of the qualification of a Bachelor of Science, should be reckoned as part of the qualification when he presents himself for the degree of Bachelor of Arts. The same also applies when a Bachelor of Arts presents himself for examination for the degree of Bachelor of Science.

NEW ZEALAND.

The Senate considered at Wellington, New Zealand, on February 3, 1916, a recommendation of the Medical Committee to the following effect:—

> That the New Zealand University Act be amended so that the Senate may have power to deal with matters concerning medical and dental professional education without receiving recommendations on such matters from the Board of Studies.

This recommendation was based on the desire to save time and to enable the Senate to deal with purely medical professional matters, instead of having them considered by a Board on which the professors and members of the Medi-

cal Faculty were under-represented. The recommendation was adopted.

It was further resolved that if a candidate fails in all or two subjects of the second professional examination (medicine) he shall be required to take all three subjects when he presents himself again for examination. Candidates who have failed at the last examination will be able to present themselves at a special examination in September. They will, however, be required to have followed a course of instruction in the interval, as prescribed by the Faculty of Medicine.

Naval and Military.

The following promotions have appeared in the *Commonwealth of Australia Gazette*, No. 22, under date of February 17, 1916:—

Army Medical Corps.

To be temporary Lieutenant-Colonel—

Major J. B. St. V. Welch. Dated 15th October, 1915.

Major J. Gordon. Dated 17th October, 1915.

The temporary rank of Major granted to the undermentioned officers is cancelled from the dates shown:—

Captain L. W. Dunlop, 9th August, 1915.

Captain B. Quick, 17th October, 1915.

The 143rd and 144th lists of casualties, etc., issued on February 18 and 21 respectively, contain the names of several members of the A.A.M.C. among those in hospital. The names are Lieutenant-Colonel J. Adam Dick, Captain D. Gwynne-Hughes, Captain R. E. Jefferis and Captain C. P. W. Dyring. In the former list it is reported that Captain C. Shellshear has returned to duty.

Captain C. W. Thompson has been mentioned in the despatches for rescuing the late General Bridges, and has been awarded the Military Cross for conspicuous gallantry and devotion to duty.

Captain E. T. Brennan has been awarded the Military Cross for conspicuous gallantry and devotion to duty.

THE QUEENSLAND BLIND, DEAF AND DUMB INSTITUTE.

The Thirty-Second Annual Report of the Queensland Blind, Deaf and Dumb Institute, which was presented at the annual meeting of subscribers held on August 24, 1915, has been published in book form, together with a list of subscribers and some delightful illustrations. It is stated that the schools are well equipped, and that the methods adopted in them are satisfactory. Some attention has been given to manual training, and it is proposed to extend this to the blind boys as well as to the deaf and dumb. The trading branch of the work continues to prosper, but some difficulties are anticipated, in view of the fact that a number of returned blind soldiers are expected to seek the assistance of the Institution. Useful methods of employment will have to be found for them.

The inspector has expressed the opinion that the Blind School in South Brisbane is very well governed, that the children are well behaved and well mannered, and apply themselves cheerfully and zealously to their tasks, that the classification is suitable, and the time-table well constructed, and that the methods employed are up-to-date. We learn that basket, rug and chair work are undertaken, and that typewriting is shortly to be taught to the blind pupils. Swimming, the usual school games, and physical exercises for the recreation of the children.

In the Deaf and Dumb School at South Brisbane the inspector was satisfied with the Government, organization and methods, and remarked on the quickness and certainty with which the children apprehended what was said to them by their teachers.

Special prizes have been offered by the Stephens Horticultural Society to the blind and deaf children for gardening work. The Braille Association have lent valuable assistance to the work in the blind school. They entertained the children at a picnic and presented book prizes.

The Superintendent records the work carried out in various institutions for the blind, deaf and dumb which he visited when in England, Scotland and America. He points out that the conditions of the adult blind in America is much worse than in Great Britain, as no sustained effort has been made to train or maintain the blind after leaving school. He remarks that the Kentucky School for the Blind at Louisville is the finest he had seen. He sums up that "Australia is the blind man's Utopia."

On June 30, 1914, there were 23 children in the blind school, and four other children have been admitted during the course of the year. Five children had left. In the deaf school, the year was begun with 40 children; five were admitted during the year, and eleven left. In the industrial branch of the institution 85 persons were in employment on June 30, 1914; two were admitted into the Institution during the year and five left. The Institution therefore was tending 138 persons at the time of the annual meeting.

Starting with a credit balance of over £500, a sum little short of £18,000 was provided for its upkeep. This was made up of £2,828 in subscriptions and donations, £4,115 in a Government endowment, £393 in school fees, etc., over £10,000 as a result of sales of goods, £375 in legacies and various other small sums. On the other side of the balance sheet, we find that the industrial branch cost £13,250 to maintain, and the home £3,257.

THE ORANGE LILY PREPARATIONS.

A prohibition of the sale of preparations variously known as the Orange Lily Suppositories, or the Orange Lily Capsuled Suppositories, in South Australia, has been published in the Government *Gazette* of February 10, 1916. The regulation is as follows:—

> No person shall sell, or attempt to sell, keep for sale, or expose for sale, or permit or cause to be sold, kept for sale, or exposed for sale, or have in his possession, custody, or control, with intent to sell or use, or permit or cause to be used the drugs known as "Orange Lily Suppositories" or "Orange Lily Capsuled Suppositories," or any preparation containing alum and boric acid, or either of them, used for similar purposes as "Orange Lily Suppositories" under whatever name designated, and any person keeping for sale, or exposing for sale, or permitting or causing to be kept for sale, or exposed for sale, or having in his possession, custody, or control, with intent to sell or use, any drugs known as "Orange Lily Suppositories" or "Orange Lily Capsuled Suppositories," or any preparation containing alum and boric acid, or either of them, used for similar purposes as "Orange Lily Suppositories" under whatever name designated, shall, on demand of the Central Board of Health, forthwith destroy the said drugs or preparations.
>
> Penalty for Breach of Regulation.
>
> Any person who fails to do any act directed to be done, or who does any act forbidden to be done by this regulation, shall be guilty of an offence, and be liable, upon conviction, to a penalty not exceeding fifty pounds.
>
> Application of Regulation.
>
> This regulation shall apply to the whole of the State of South Australia.

It will be remembered that the advertisement and sale of these suppositories was prohibited by the Department of Public Health of New South Wales, on February 10, 1915 (see *The Medical Journal of Australia*, February 20, 1915, p. 170).

THE HEALTH ACT, VICTORIA.

Although the Health Act of Victoria has only just been amended, the announcement has now been made that new and efficient legislation would be introduced into the Houses of Parliament in the coming session. It will be remembered that the amending act was a temporary expedient, aiming at the better control of epidemic diseases. The existing Health Act is said to be unintelligible and wholly unsuited to the conditions obtaining in the State at the present time.

The Medical Journal of Australia.

SATURDAY, FEBRUARY 26, 1916.

The Children in the North.

In the current issue we publish a resumé of the excellent reports of the Medical Inspectors of School Children in Queensland. The fact that we have been able to deal with the annual reports of the medical branches of the Departments of Public Instruction of two other States within a very short time renders these reports of more than usual interest. In the main the same problems are involved in each State, but in the case of Queensland there is an additional subject to be taken into consideration, namely that of the prevention of trachoma. The importance of the health of the young is so great that no apology is needed for the repeated introduction of the subject. In all the articles which have appeared in *The Medical Journal of Australia* on this subject, the necessity has been emphasized of divorcing the work of inspection from that of treatment, or of the application of remedies for the defects discovered at the inspection. This is especially necessary in the interests of the children themselves, for no matter how efficient the School Medical Officers may be, or how well organized the service is, the work of treatment can only be satisfactory if the practitioners carrying it out are constantly dealing with the treatment of disease or physical defects, and if the parents have the unhampered choice of their medical attendant. The question of remuneration is secondary, and scarcely affects the subject. In Queensland, the arrangement known as the "ophthalmic grant" is eminently satisfactory in principle. The Ophthalmic Inspector examines the eyes of the children in the districts in which acute blight and trachoma are endemic. Persons, who can afford to pay for the treatment of these affections, are recommended very strongly to place their children in the hands of private practitioners under the usual conditions of practice. Those, who are not well placed financially, are informed that the local practitioners have agreed to undertake the treatment without charge to the patients. These practitioners receive from the State the grant for this purpose.

The utility of the whole system of school hygiene depends on its good organization and on the efficient manner in which the various duties are performed. No plan for the remedy of defects can be of use, unless the primary stage of inspection is properly conducted. There are two essentials for adequate inspection. The first is that the medical officers are sufficiently trained for the work, and the second is that the amount of work, which each has to perform, is not so great that its satisfactory performance is a physical impossibility. The careful selection of medical officers is a matter for the responsible heads of the Departments, and we may assume that the qualification of competence is always the first consideration in their appointment. In regard to the second matter, the systems in vogue in the three States of Victoria, New South Wales and Queensland are not happy. It will be noted from the reports that each officer has to inspect a number of school children varying from 4,000 and 8,000 each year. In many instances vast distances have to be covered on the journey from one school to another. Records have to kept; accurate observations have to be made of the hygienic conditions encompassing the children, and in addition there are numerous minor, but still important duties to be carried out. If the skin, eyes, teeth, nose, ears, fauces, hair, spine and limbs are examined even cursorily, the examination must occupy at least 15 minutes for each child. When defects are discovered, the inspection should occupy twice this length of time. Wholesale, rapid practice is bad practice. In some large outpatients' departments, notably in London, patients are treated at a surprisingly rapid rate, to their detriment. A diagnosis cannot be made within a few minutes, and yet at times, nearly 60 patients are "seen" in an hour. Reports have been received of the medical inspection of school children at the same rate, and we can state without fear of contradiction that inspection carried out in this fashion is quite valueless. Similarly the practice of passing recruits at the rate of 45 in one hour cannot be in the interests of the Empire, and is probably no protection against the inclusion of men unfit for active service. No insurance company could live for a

single year if the medical referees rushed the work at this feverish pace. Are the children of our schools, or our recruits of less importance to the Commonwealth than the individuals are to the companies with whom they wish to insure their lives in the commercial sense? Medical inspection is a very costly matter, if it is properly carried out. Cheap work must be bad.

THE SUPPLY OF MEDICAL OFFICERS.

In last week's issue we published a circular letter addressed by the Acting Director-General of Medical Services to the District Commandants, dealing with the requirements of the Department of Defence in regard to medical officers. The whole profession is prepared to lend as much assistance to the Director-General as possible and to do his bidding, in order that the organization and efficiency of the Australian Army Medical Corps may be all that it should be. It is no secret that both were far from perfect in the past. The task of putting matters right and of keeping them right is no easy one, but the members of the medical profession have every confidence in the Director-General. From the letter referred to, it is plain that, even when a man is chosen for his special experience in one branch of practice, his services may at times be required for other duties. At the same time, the Department for Defence is seeking men with special qualifications for special work. The whole matter is a Federal one, and not a State one, and we would urge members to take the widest view of the situation. For the sake of convenience of establishment, the arrangements with practitioners volunteering for active service have to be made locally under conditions obtaining in each military district. As has been emphasized on repeated occasions in this journal, the best solution of the complicated question of the supply of medical officers is to be sought through the intermediation of the Branches of the British Medical Association. Steps have been taken by each Branch to ascertain which men are available, and what form of work each is competent to undertake. The Department would be well advised if the following arrangement were made with the Branches. When one or more medical officers are required for any given purpose, the Honorary Secretaries of the Branches should be asked if they could find competent men willing to undertake the particular duties mentioned. The Department would then receive the names of the practitioners and the information on the basis of which the recommendations are made. The entire responsibility of appointment would naturally rest with the Military Authority, but in the event of a suggested practitioner not being accepted, the Branch Secretary could seek another suitable man to undertake the duty. By means of an arrangement of this kind, the information collected by the Branches could be utilized without the objectional necessity of handing over a mass of confidential details to the Department. In view of its large needs in the immediate future, the Department should lose no time in availing itself of the assistance of the British Medical Association.

INFANTILE PARALYSIS IN NEW ZEALAND.

An epidemic of some magnitude of anterior poliomyelitis is producing something of a scare among the inhabitants of Auckland, New Zealand, and the health authority is endeavouring to adopt every rational means of dealing with the outbreak. History repeats itself in a most striking fashion in connexion with epidemic diseases. From time to time, comparatively serious outbreaks of infantile paralysis arise within more or less limited areas, and for a few months these epidemics defy all prophylactic measures. The trained experts in public health have to confess some ignorance in regard to the mode of spread, and also in regard to the intermediary host. It has now been recognized that the danger of conveyance of the infection from child to child is not great, and that there is little sense in closing schools during the course of an epidemic. There is some evidence in favour of responsibility of certain domestic animals for the continuance of the outbreak, and it is thought that the infection may be conveyed from animal to child, or even from child to child by the *Stomoxys calcitrans*. More knowledge, however, is required before preventive measures, calculated to arrest the course of an epidemic, can be enforced. In September, 1914, an epidemic occurred in Queensland, and lasted to the end of the year. The termination of the epidemic may have been assisted by general hygienic measures, but it would seem as if it ran its course and as if the end was as spontaneous as the commencement. In that outbreak the laity exhibited an extraordinary amount of originality in making suggestions to the health authority through the medium of the press. In New Zealand, the sapient scribbler is again displaying his originality, unadulterated with ingenuity, with the same object in view. From

the beginning of this year till February 21, no less than 235 cases have been notified in Auckland, and of these, 16 have proved fatal. The large majority of the cases has occurred in the city or suburban districts. The number of cases notified week by week is no index of the course of the epidemic, since early diagnosis is the exception rather than the rule, and it is not uncommon for the disease to have been present for some weeks before a doctor is called in. In all probability the epidemic will come to an end in three or four weeks. In the meantime, it may be profitable if a careful watch be kept on flies and domestic animals, as possible intermediaries of infection.

FOREIGN PRACTITIONERS AND AUSTRALASIA.

The New Zealand Ministry has recently received a communication from the Medical Faculty of an American University, enquiring into the conditions of medical registration in the Dominion, and asking for particulars in regard to the climate and life of New Zealand. Some of the graduates of this University are considering the desirability of emigrating to New Zealand for the purpose of filling the gaps made by the war. The Minister of Public Health has thanked the American graduates for their kind consideration, and has given them the information desired. This information may be put into a nutshell, as follows. Registration may be claimed by any person who is a graduate in medicine and surgery of the University of New Zealand, by any person who has been registered or is eligible for registration in the United Kingdom, and by any person who holds a foreign diploma approved by the Medical Board issued by a foreign University or institution, provided that the holder has completed a course of study of not less than five years' duration. No diploma or degree is registerable in New Zealand unless it is registerable in the country in which it was granted. Furthermore, a person who has been convicted of any offence punishable by imprisonment with hard labour for a term of two years or longer, or who is not of good fame or character, cannot be registered. It thus appears that the Medical Board has it in its power to approve or disapprove of a foreign diploma or degree for the purposes of registration. It is unfortunate that the position is not more strictly defined by law. At the present time more than ever it is very undesirable that foreigners should be admitted to registration in Australasia, and it would be deplorable if our own men found that, while their colleagues were respecting their practices during their absence on military service, their places were snapped up by a newly-arrived alien. The laws of registration are not uniform in the Commonwealth, and in this respect the Federation has so far failed in its purpose. It is hoped that during the coming sessions of the various Parliaments, amendments will be introduced where necessary to inform the world that, in so far as medical practitioners are concerned, no foreigners need apply.

ULTRA-VIOLET LIGHT AND THE CIRCULATION.

The whole existence of living organisms on the surface of the earth depends on the receipt of radiant energy from the sun. This energy is only in part converted into heat and employed to warm material bodies. A part of it is utilized directly for various purposes. The study of these processes is of much difficulty, and has progressed slowly, notwithstanding its importance. The greater number of the constituents of living cells are colourless, that is, they do not absorb any of the wave lengths of visible light. Many of them absorb the rays of the infra-red and ultra-violet regions of the spectrum. The ultra-violet rays have been regarded as more potent, since they give rise to the effects that are more readily noted. The burning of the skin due to exposure to sunlight, the conjunctivitis consequent on exposure to bright electric light, the destruction of micro-organisms in bright light have been proved to be due to the agency of ultra-violet light. Little is known of the manner in which these effects are produced, or of the circumstances which may modify their occurrence. Attention has been directed recently to the potent action of these rays on the carbohydrates, which are disintegrated in various ways by the rays, and to the wide range of physiological response to these potent excitants. J. Lindhard[1] has completed a prolonged investigation of the influence of ultra-violet light on the circulation of man. The trunk of the body has been exposed for an hour to the light from two carbon arc lamps. The heat has been diminished by water screens suitably placed. A strong erythema develops two to five hours after the bath. The dermatitis increases for forty-eight hours. When the dermatitis has ceased, complete peeling of the epidermis takes place. This peeling usually lasts for a fortnight. The effect on the circulation has been deduced from the pulse rate, the amount of oxygen absorbed through the lungs and the volume of blood passing through the lungs in each minute. In this way the value of what is known as the oxygen pulse-rate is ascertained. The effect of the light bath has been to increase the volume leaving the heart in a given time. The increase appears to be due to a cutaneous vaso-dilatation. The subsequent effect on the circulation is variable. In some individuals the increased volume is maintained. In other cases the volume diminishes. Repeated exposures to the rays in some individuals leads to continued increase in the volume of blood leaving the heart, in other cases an immunity to the effects of the exposure is developed.

The death of Sir William Turner, K.C.B., F.R.S., F.R.C.S., D.C.L., LL.D., D.Sc., etc., etc., Principal and Vice-Chancellor of the University of Edinburgh, occurred at the age of 84 years, on February 15, 1916. Sir William held a large number of important offices, including that of the President of the British Association for the Advancement of Science in 1900, that of the President of the Royal Society of Edinburgh, and that of the President of the General Medical Council. His contributions to the literature of anatomy and surgical pathology, his reputation as a teacher and lecturer, and his achievements in the academic world have been recognized in all parts of the Empire, and in many foreign countries.

[1] *Skan. Arch. f. Physiologie*, XXX., p. 73.

Abstracts from Current Medical Literature.

MEDICINE.

(69) Pleural Eosinophilia.

Eosinophile pleural effusion have been recorded 68 times. In eight instances only has this condition been known to follow lobar pneumonia. Stanhope Bayne-Jones (*Johns Hopkins Hospital Bulletin*, January, 1916) records a further case. The patient was a man, aged 30 years, who had had gonorrhœa eight years before, and who gave a history of periodical bouts of drinking. The pneumonia ran an ordinary course, with high fever, until the seventh day. The temperature then dropped gradually, but remained between 99° and 100° during the following week. Signs of empyema developed, and the pleural cavity was aspirated. Half a litre of amber-coloured fluid was withdrawn. It had a specific gravity of 1015, and contained 40 grms. of protein per litre. The paracentesis was repeated on two occasions. It was found that the pleural effusion contained 45% of eosinophiles, of which the polymorphonuclear represented 44%. There was a slight blood eosinophilia. The author discusses the Ehrlich and the Dominici and Widal theories of the origin and nature of eosinophile cells. He comes to the conclusion that the cells found in the pleural exudate were myelogenous. He is inclined of the theory propounded by Schwarz that the protein dissociation products in the exudate form an eosinotactic substance, which gives rise to local eosinophilia, as well as to hæmeosinophilia. He has come to the conclusion that pleural eosinophilia has no diagnostic significance, but that it is usually associated with a favourable prognosis.

(70) Acute Œdema of the Lungs.

A. G. Nicholls deals with the condition known as acute pulmonary œdema, and discusses the subject under two heads, *viz.*, symptomatic and idiopathic cases (*Canadian Med. Assoc. Journ.*, November, 1915). He recognizes five ætiological forms. (1) Agonal, (2) inflammatory, (3) congestive, (4) toxic, and (5) idiopathic. In the first form, the œdema is consequent on the patient dying. In the inflammatory form it is usually local, and is found in the neighbourhood of pneumonic and tubercular patches, tumours and infarcts. The congestive form is met with in obstructive valvular cardiac affections, and is associated with hyperpyrexia, sun-stroke, and acute fevers. The toxic form occurs in the course of Bright's disease. He suggests that post-anæsthetic œdema and œdema occurring in cachetic conditions may also be included. In the idiopathic form the œdema sets in in a fulminating way. The author cites a number of cases illustrating these various forms. In the fulminating form, little is known of the mechanism of its production. The onset is unexpected and acute, prodromata are absent, the signs of asphyxiation develope rapidly, the menace to life is grave, and there is a tendency to recurrence when recovery has taken place. Lissaman's patient had no less than 72 attacks in 2½ years. The diagnosis is not easy, and the condition must be differentiated from pleural effusion and asthma. The outpouring of pinkish, frothy fluid from the mouth and the bubbling and sibilant râles in a case of asphyxiation coming on rapidly should give rise to the suggestion of fulminating œdema of the lung. The author suggests that a sudden temporary increase of blood pressure is unlikely to bring about œdema. When there is obstruction to the outflow of blood, the plasma tends to escape from its normal channels. Should the lymphatics be insufficient to carry off the excessive effusion, œdema may result. He also deals with the part played by the nervous system in the production of œdema. It is probable that there may be a form of angioneurosis leading to this condition. After analysing the physiological condition of the patient in this affection, he passes on to the consideration of treatment. Theoretically, morphine is contra-indicated in acute œdema of the lungs, but in practice it is found of great value, if given with great circumspection and in small doses. Atropine is not so powerful, and may depress the vagus. It should therefore be used with caution. Chloroform has been suggested. Oxygen inhalations prove of great assistance when cyanosis is evident. The most efficacious remedy is bleeding.

(71) An Unusal Origin of Anthrax.

R. R. Elworthy (*Lancet*, January 1, 1916) records three cases of anthrax in which the infection was traced to the use of infected shaving brushes. The first case ran a rapid course, and ended fatally. There was high fever and much œdema of the neck. A small, yellowish patch of subcuticular necrosis was present over the most prominent part of the thyroid cartilage. Some vesicles surrounded this patch. The diagnosis was made *post mortem*, after a bacteriological examination had been carried out. Enquiries as to the possible source of infection having failed to elucidate any positive information, elaborate bacteriological investigations were undertaken with the bristles, cementing material and bone of a new shaving brush which the patient had used a few times. The shaving brush was a cheap one, and was made up of pig bristles, horse hair, possibly cow tail and other unidentified animal hairs. The author succeeded in obtaining five other brushes of the same lot as the one used. In every case but one anthrax bacilli or spores were grown from the bristles of the brushes. Attempts to trace how so large a number of spores could have found their way on to the material worked with failed. No definite reactions of blood or protein could be obtained, and he was therefore compelled to relinquish the theory that the hairs had become soiled by animal tissues or discharges. He suggests, on the basis of observations, that pediculi may have been the means of the infection. He also records two non-fatal cases of anthrax, in which the infection was traced bacteriologically to cheap shaving brushes.

(72) Sarcoma of the Lung.

Oliver P. Holt and Helena T. Ratterman record the case of a woman, aged 64, whose leg was amputated above the right knee for a spindle-celled sarcoma, in December, 1913 (*Journ. Amer. Med. Assoc.*, January 15, 1916). At the end of 1914 the patient complained of pain under the left shoulder-blade and in the left arm. There was considerable cough, but little sputum. The respirations were rapid. The excursions of the chest during respiration were more limited on the left than on the right side. There was dulness over both apices and dull areas scattered over both lungs. A large area of dulness was found in the left axilla, extending anteriorly. The breathing was bronchovesicular, and there were medium moist and dry râles over the dull areas. No tubercle bacilli were found. The Wassermann reaction was negative, whereas the Abderhalden test was positive. The diagnosis of metastatic sarcomata of the lungs was made, and received confirmation by X-ray examination. The patient died. The autopsy revealed large and small nodular growths, from the size of a small pea to the size of a small orange. Many of the nodules had softened, and their contents had assumed the appearance of moist, cottage cheese. Microscopically, the masses proved to be spindle-celled fibro-sarcomata. These tumours are relatively rare. The chief interest of the case lay in the fact that the patient was under observation from the very beginning of the illness.

(73) Food Poisoning by Bacillus Paratyphosus B.

H. S. Bernstein and E. S. Fish (*Journ. Amer. Med. Assoc.*, January 15, 1916) has investigated an epidemic of acute gastro-enteritis, which they traced to the ingestion of pie. In all, 60 persons became seriously ill, and four died after partaking of pie at a particular restaurant. The symptoms appeared from 12 to 19 hours after eating. In a few cases they appeared as early as 4½ hours. They consisted of epigastric pain, a burning sensation from the fauces to the stomach, extreme thirst, and spasmodic contractions of the calf muscles. Vomiting of green material occurred, and diarrhœa was also present. The vomiting lasted for six days, and the stools remained green for many days. All the patients were greatly depressed. It was discovered that although some persons had eaten of the pie without being affected,

the source of poisoning was obviously contained in it. Bacteriological examination was undertaken, and an organism corresponding to *bacillus paratyphosus B.* was isolated. The identity of the bacillus was established by the absorption test, a standard strain of *bacillus paratyphosus B.* and of *bacillus suipestifer* being used. The authors discuss the means by which the bacilli gained access to the constituents of the pie. In conclusion, they emphasize the necessity of protecting public food supplies from carriers of disease organisms.

NEUROLOGY.

(74) Recovery of Motor Function in Hemiplegia.

S. I. Franz, M. E. Scheetz and A. I. Wilson (*Journ. Amer. Med. Association*, December, 1915) discuss the possibility of recovery of motor function in long-standing cases of hemiplegia. They give brief histories of five cases. In these cases the paralysis had endured from nine to twenty years, and various degrees of contracture had developed. Three methods of treatment were employed. The first was that of massage and vibration. The muscles were stroked, shaken and percussed. Passive movements of the limbs were performed, and when these two methods had been used for some time, the third method of treatment by active movement was utilized. Some degree of recovery has been observed in each case as a result of the treatment. In one case the progress was marked. The patient had a hand flexed on the wrist, and, after five months' treatment, was able to sew and do rapid and fine sewing. In recording the degree of recovery definite numerical data are given to show the rate and degree of movement. The authors discuss these results in the light of recent physiological experiments, which show that, in animals, movements occur as usual after removal of the cerebral cortex. They consider these facts should encourage physicians to greater efforts on behalf of paralysed persons.

(75) Diagnosis of Cerebellar and Labyrinthine Lesions.

J. G. Wilson and F. H. Pike have reviewed the knowledge accumulated concerning nystagmus, vertigo and ataxia, the symptoms common to lesions in the labyrinth and in the cerebellum (*Journ. Amer. Med. Association*, December, 1915). Much of what they present is based on experimentation on animals done by them. The results have received sufficient verification in man both on cases observed by them and on cases recorded by others. They conclude that one sharp distinction between cerebellar function and labyrinthine function lies in the fact that the cerebellum is an afferent station for proprioreceptive impulses, and is on one efferent path from the cerebrum to the cord, and that the labyrinth is a peripheral sense organ. Nystagmus occurring as a result of a labyrinthine lesion consists of two phases, a slow lateral deviation, labyrinthine in origin, followed by a quick return, cerebral in origin. These movements are synchronous in both eyes, and vary definitely in direction with the labyrinth which is affected. The movements are primarily horizontal, and the deviation is always to the side of the lesion. In lesions, other than purely labyrinthine, a deviation to the side opposite the lesion may occur. Rotatory movements do not appear to have much diagnostic value. Cerebellar nystagmus is characteristically ataxia. It is lessened, and may disappear with rest. Its direction in regard to the lesion is variable. The authors only discuss vertigo in association with the sensation of rotation. The law applicable to apparent rotation in labyrinthine lesions is that rotation of oneself is always in the direction of the rapid phase of nystagmus. In regard to ataxia the authors state that labyrinthine lesions differ from cerebellar (1) in the existence of Romberg's sign in labyrinthine lesions, (2) in the effect of the attitude of the head on equilibrium of the body, (3) in the apparent absence of movements of rotation and disorientation in labyrinthine lesions, and (4) in the not infrequent absence in labyrinthine lesions of those movements of isolated parts which result in dysmetria. Finally the authors point out that lesions are frequently of such a nature as to involve structures other than the labyrinth and cerebellum, so that purely labyrinthine and purely cerebellar lesions are less common than more extended lesions.

(76) Late Paralysis of the Ulna Nerve.

J. Ramsay Hunt describes the histories of three cases of tardy paralysis of the ulna nerve, occurring many years after an injury to the elbow joint (*Journ. Amer. Med. Association*, January, 1915). In the first case a fracture of the elbow joint at the age of five years was followed by cubitus valgus and deformity in the region of the internal condyle. Thirty-six years later a slow development of ulner neuritis with atrophy, pain, paræsthesia and disturbance of epicritic sensibility limited to the area of distribution of the ulnar nerve, eventuated. In the second case a saleswoman fractured the right elbow at the age of 16 years. There was fair recovery, with insufficient power of flexion. At the age of 55, that is 39 years later, symptoms of ulnar neuritis occurred, and had progressed insidiously for ten years. The symptoms noted were weakness, atrophy and disturbance of epicritic sensibility. In the third case the neuritis occurred in a man aged 22 years, who fractured the elbow six years previously. In this case an operation revealed a cyst pressing upon the ulnar nerve. The cyst was not apparently in communication with the joint. Recovery was complete, and the patient was well five years later, and had no signs of recurrence.

(77) The Association of the Basal Ganglia with Accessory Respiratory Acts.

T. Graham Brown (*Journ. of Physiology*, May, 1915) has studied the expression of the emotions in a young male chimpanzee. He has noted how the respiratory acts are modified when the animal is pleased or unhappy. He believes that the animal at times laughs. After observing these conditions for eighteen months, he has examined the animal in the decerebrate state. Stimulation of the area of the pyramidal tracts has produced movements in the contra-lateral limbs. Stimulation of the area of the red nucleus has led to its characteristic reaction. Stimulation of the grey matter round the neuraxial canal has caused the respiratory change described as "laughter." Stimulation of the caudal pole of the optic thalmus has given rise to "sighing" and "panting" respiratory acts.

(78) Speech Defect in Progressive Muscular Atrophy.

W. B. Swift records a case of progressive muscular atrophy in an Irish cooper, who complained of weakness of the leg and indistinct speech. There was some atrophy of the right leg, the knees jerks were present on both sides, but considerably more marked on the left (*Boston Med. and Surg. Journ.*, November 4, 1915). He had difficulty in swallowing, and there was regurgitation of food. Some words were spoken with a nasal twang, and an over amount of pharyngeal resonance. It appears that some of the muscles of the neck were involved to such an extent as to render certain sounds imposible and others indistinct. Complete relief was afforded by supporting the larynx with the hand during speech.

(79) Concussion Aphasia.

A. P. Procter (*Lancet*, October 30, 1915) records three cases of soldiers in the trenches, who became aphasic as a result of the explosion of a shell. In each case no objective damage was caused, although two of the patients were rendered unconscious. The first patient found his voice suddenly during intoxication, while the aphasia was removed in the other two cases by inducing the patients to speak during the excitement stage of ether anæsthesia.

(80) Progression in the Fœtus.

T. Graham Brown (*Journ. of Physiology*, May, 1915) has examined the state of the fœtus in the cat by shelling the fœtus out of the uterus into warm physiological saline solution, while still leaving it attached by the umbilical cord. Movements of progression occur sometimes spontaneously, but, at all times, upon pressure on the umbilical cord. If the fœtus be decerebrated, co-ordinated movements of progression can be elicited by stimulation of the area of the red nucleus. These experiments show that these movements are not "learned," but depend on the architecture of the nervous system.

Medical Societies.

THE OPHTHALMOLOGICAL SOCIETY OF NEW SOUTH WALES.

A meeting of the Ophthalmological Society of New South Wales was held at the Sydney Hospital on February 2, 1916, Dr. J. C. Halliday, the President, in the chair.

The President announced with regret the loss which the Society had sustained through the death of Dr. Odillo Maher. He proposed that the Honorary Secretary should convey by letter to his widow and family the Society's deepest sympathy, and that a record should be made in the minutes expressing appreciation of his valuable services.

Dr. R. H. Jones, in seconding the motion, stated that he had been brought more closely in touch with the late Dr. Maher than any of the members, since he had been working in conjunction with him. He considered him one of the best practitioners he had ever met.

The motion was carried, all members standing.

Dr. E. A. Brearley presented a patient, aged 19 years, who had come under observation on January 15, 1916, with a history of sudden failure of vision on January 7, while wrestling. The patient was wearing + 3.5 D sph. and + 1.5 D cyl. (both eyes). The glasses had been prescribed 11½ years previously. The patient had not had the acuity of vision tested since that date. There was no point of interest in either the personal or the family history.

On January 15, 1916, the vision on both left and right side was $^{6}/_{60}$. The fundus of the right eye contained a flat, circular structure of about 1½ disc in diameter in the macular region. A few vessels were seen leading into this structure from the retina. The surface appeared to be irregular. The colour in the centre was dark, and there was a pink halo at the margin. It pulsated feebly at the same rate as the general arterial pulsation. There was a similar small structure just below to the nasal side. The left eye contained a similar structure at the macula of about 1 disc in diameter. It was surrounded by a ring of 8 or 9 red patches, forming dots on the circumference of a circle, with the macula as centre and the papillo-macular distance as radius. These patches varied in size from ½ to 1 disc in diameter. Each was entered by a tortuous artery; some of them could be seen flushing with the arterial pulse, and all of them were red in colour. The condition of the right eye was unchanged since the first examination. In the left eye the macular change had diminished to about one-third of its original diameter. The right vision was $^{6}/_{60}$ and the left was $^{6}/_{18}$. Dr. Brearley regarded the case as one of small multiple, capillary angiomata. For some time the vision has been maintained by the left eye alone. The angioma, becoming over-engorged, had been distended over the macular region, and had caused the sudden failure. The return of vision could be explained by the gradual emptying of the angioma.

Dr. Cyril Shepherd said that the vessels were small, and questioned whether the condition was actually one of angioma.

Dr. R. H. Jones thought that the discs were paler than they should be. The spot at the right macula was different from the other patches.

Dr. D'Ombrain pointed out that there were no veins leading from the spots corresponding to the veins leading to them.

Dr. Guy Antill Pockley remarked that he had seen an angioma of a remarkably gross type, in which the veins were so thickly intertwined that they resembled a pile of worms. If the condition was angiomatous it must have been in a very early stage.

Dr. E. Temple Smith showed a case of perforating injury to the eyeball by a fragment of steel. He was of opinion that the fragment had perforated the cornea, iris and lens. He had seen a brilliant particle surrounded by what looked like an air bubble earlier in the afternoon. He asked for suggestions as to the treatment. He had had an X-ray examination carried out.

Dr. Brearley suggested that the foreign body had traversed the whole eye, and was lying in the orbit.

Dr. Cyril Shepherd was of opinion that the vitreous was fluid. He commented on the rapidity with which it had become so. He called attention to the fact that the iris was less dilatable with atropine than it had been in the morning.

Dr. R. H. Jones thought that it was possible that the foreign body was in the orbit, in spite of the fact that from the skiagram it appeared to be in the globe. He cited a case in which the subsequent history lent strong support to the opinion that a foreign body was in the globe, although the radiographic examination localized it twice in the orbit.

Dr. Guy Pockley considered that the case illustrated the urgent need of a giant magnet in one of the hospitals. In his opinion the giant magnet gave the best results in cases of the kind. He stated that he could see a substance in the lower and outer segment of the globe through the vitreous haze. He regarded this as more like a foreign body than blood clot. It was long and spear-shaped.

Dr. D'Ombrain held the view that the size of the foreign body should determine the method of treatment to be adopted. A large body was more easily extracted by a small magnet than a small one. He instanced a case of the late Dr. Odillo Maher, in which a foreign body remained in the eye for years without producing any ill-effects.

Dr. Shepherd reminded his hearers that some surgeons preferred small magnets to giant magnets.

Dr. D'Ombrain agreed with Dr. Guy Pockley in regard to the advantages of the giant magnet. In the Birmingham and Midland Eye Hospital there was a rule that the giant magnet must be applied to every eye in which the presence of a foreign body was suspected.

Dr. Cyril Shepherd read some notes on the subsequent history of a case previously described. A particle of steel had perforated the cornea and lens half way between the centre and the periphery. It rested on the retina. After several attempts the fragment was extracted with difficulty by means of a small magnet through an incision. He had given a bad prognosis on the assumption that cataract was inevitable. Several months had elapsed, but there was only a slight trace of the track through the lens. The vision was ⅚ and the field was normal, with the exception of a small scotoma corresponding to the retinal injury.

Dr. Shepherd was congratulated on the fortunate result.

Dr. E. A. Brearley described a case of *Parinaud's conjunctivitis*. One eye had become affected with granulation-like structures on the conjunctiva. The pre-auricular gland on the same side had become enlarged. The lymphatic glands in the neck had become enlarged at a later date. Some months after, the pre-auricular gland softened and broke down. Complete recovery of the conjunctival condition followed. Only a small scar was left where the gland had suppurated.

Dr. Guy Pockley read notes on an unusual case of *glaucoma*. The patient was a man aged 46 years. His vision had become more central for three years. The symptoms of chronic glaucoma were present. The pupils were active. The tension of the right eye was + 1, and of the left eye normal, or just positive. There was marked cupping in both eyes. The vision in each eye was less than $^{6}/_{60}$. Under correction the vision of the right eye was $^{6}/_{12}$ (partly), and of the left eye $^{6}/_{9}$ (partly). The field in the right eye was concentrically contracted to within 3° to 4° of the fixation point. The nasal field was almost gone on the left side. Trephining was performed first on the right side and later on the left. The fields gradually improved to some extent. In Dr. Pockley's opinion it was extraordinary that the increase of the field on the temporal side extended in wedge form with the base outwards for 42° from the fixation point. There was no increase on the nasal side. The slightly enlarged blind spot was entirely surrounded by a field for white. He remarked that he had never seen a similar case. It was contrary to the teaching of Bjerrum to find such a condition in the region of the blind spot in glaucoma. He had been greatly surprised to find the field gradually increase as it did. The fields had not altered further; 14 months had elapsed since the operation. The vision with glasses was $^{6}/_{9}$ in the right and $^{6}/_{6}$ in the left. The tension was normal to + on the right side and normal on the left.

Measured by Schiotz's tonometer the corneal impressibility was 4.5 divisions, the smallest weight being used.

Dr. J. C. Halliday remarked that it was an unusually satisfactory result. Dr. R. H. Jones thought that it would be very satisfactory if the acuity of vision were retained in a case with so contracted a field. It was frequent for operation in cases with very contracted fields to be followed by a marked diminution of vision.

THE HEALTH OF SCHOOL CHILDREN IN QUEENSLAND.

The report of the Secretary for Public Instruction in Queensland for the year 1914, bearing the date October 1, 1915, has recently been issued. It is a document of 194 pages. It is impossible to summarize all the information contained in the report in chief or in the appendices in this place. Only those matters connected more or less directly with school hygiene will be dealt with.

During the year 108,245 children were enrolled in State schools, provisional schools and high schools. The daily average of attendance was 83,314. The number of schools in the State is given at 1,346. It appears that two whole-time medical inspectors, one ophthalmic inspector, one chief dental inspector, and two assistant dental inspectors were employed to carry out the work of medical and dental inspection during the year. The Secretary points out that while dental inspectors have covered the greater part of the State since their appointment, it has not been possible for the medical inspectors to visit all the schools. "Most of them, however, have been reached." This statement is a little misleading, inasmuch as the number of schools visited by the two whole-time and one of the part-time medical inspectors during the year was 204, and on this basis it will be seen that a large number of children must escape the medical inspection.

The Secretary aims at an annual visit of each school, and intimates that a comprehensive scheme has been prepared to this end. The extent to which effect can be given to this scheme must depend on the amount of money available. We understand that another consideration is delaying the application of part of the scheme, viz., the shortage of medical practitioners.

Medical Inspection.

It is the practice in Queensland for each medical inspector to issue a separate report on the work accomplished by him or her during the year. The report of Dr Eleanor Bourne deals with the visits to 95 schools, and the examination of 4,247 pupils. It would thus appear that she conducted on an average 106 examinations each week. Assuming that the travelling from school to school was accomplished out of school hours, the average time available for each child would be approximately 15 minutes. This estimate is probably too high, firstly because time is always wasted in accumulating the children for the inspection, and secondly because it is obviously necessary, in certain cases, to travel from school to school during school hours. The work of the Inspector would be of greater value if the number of children to be examined were limited to 2,000 in one year.

Dr. Bourne points out that the total number of notices sent to parents on account of defects capable of amelioration was 916. This represents 21.6% of the children examined. Comparison with other States reveals an extraordinary disagreement. It cannot be supposed that there is a material difference between the health of Queensland children and that of New South Wales or Victorian children. Queensland is undoubtedly more healthy than the other two States mentioned, as is evidenced by a lower death-rate, but some other explanation is required to account for the fact that the Medical Inspector in New South Wales found defects in 60.77% of the children examined, while Dr. Bourne, after a more careful examination than is usually carried out in New South Wales, discovered 21.6% of the children to be suffering remediable defects. We are unfortunately not in a position to determine from the report of the Medical Inspectors in Victoria the percentage of children found to be defective. The data given discloses the fact that 9,416 defects were discovered in 9,671 children. It may be assumed that more than one defect was found in many of these children. Dr. Elizabeth M. Sweet, who examined 6,404 children during the year, notified defects in 29%. Dr. Nisbet examined 895 children, and found defects in 28.6%.

In dealing with defective teeth, Dr. Eleanor Bourne calls attention to the fact that the Dental Inspector visits the schools once a year, sends a detailed report of the conditions of the child's mouth to the parents, and advises when treatment is required. In those children dealt with by Dr. Bourne an especial effort was made to save the permanent teeth and the temporary molars. Immediate dental treatment was recommended in 13% of the girls and 10% of the boys. The work of the Dental Inspector's staffs has effected a very marked improvement in the condition of the childrens' mouths.

Adenoid vegetation and enlarged tonsils were discovered to be more frequent in boys than in girls. The former were detected in 177 boys and 111 girls. This represents a frequency of 6.8% of the children examined. Enlarged tonsils were present in 146 boys and 113 girls, or 6.1% of the children examined. Dr. Bourne is of opinion that the decrease in the frequency of these throat affections is due in a large measure to the improvement in the hygiene of the mouth. She draws attention to the striking association of faucial and tonsillar defects with carious teeth. Turning to the question of the effect of post-nasal growths, she finds that 14% of the children with adenoids were below the average in intelligence, whereas only 5% of those who were free from adenoids were below the average. Frequent attacks of bronchitis were noted in 17% of the children with adenoids, and 9% of those without. Otorrhœa and deafness were three times as frequent, and earache nearly 10 times in children with post-nasal growths. She directs attention to the rôle played by the tonsil in the ætiology of heart disease. The majority of cardiac lesions are rheumatic in nature, and the infection usually finds its way into the body through the tonsils. She therefore pleads for careful control of the mouth, fauces and nose, and the adoption of a simple but regular mouth hygiene.

Visual defects were discovered in about 1% of children examined. The actual number of errors of refractions was greater, but only those cases in which squint, headache, conjunctivitis, or other accompanying symptoms were present, are included in the list. The large majority of the visual defects were of a minor degree, the vision being $^6/_9$. Of the 44 children with visual defects, 14 wore glasses which corrected their defects fully, 9 wore glasses which remedied their defects partly, and 7 wore glasses which did not improve the vision, and at times even made it worse. In 19 cases children with normal vision were wearing glasses.

Cardiac defects were detected 28 times. Of these 26 were instances of dilatation, usually of a mild degree. Mitral regurgitation was present 13 times, mitral stenosis 6 times, aortic disease 4 times, pulmonary twice, and patent *foramen ovale* 5 times.

Of the 11 children in whom anæmia was discovered, 8 were found to be affected with ankylostomiasis. In addition 6 children were found to be suffering from pallor and lasitude, caused by over-crowding and other unsatisfactory home conditions.

The number of children found to be mentally defective was surprisingly low, representing only 0.15% of those examined. Cleanliness appears to be more prevalent among Queensland school children than elsewhere. In 16% of the girls the hair was found to be ill-kept.

Dr. Sweet's report covered schools in the far North, between Cairns and Mareeba, on the Great Northern Railway between Charters Towers and Townsville, and on the coast south of Brisbane. In the Northern districts 2,825 children were examined, and in the Southern districts 3,579 children were examined. In thus appears that this energetic lady has conducted an inspection of over 6,400 children in the course of one year, and has traversed the whole length of Queensland to accomplish this feat. The details given in the report bear evidence of the care exercised in the inspection. The same is noticeable to a marked degree in Dr. Bourne's report. It is obvious, however, that sufficient

time cannot be devoted to each child when so large a number have to be dealt with in one year.

Two tables are published in connexion with the notifiable defects detected. In the first the children in the North and those in the South are separated, and the percentages are given. In the second the actual numbers are set out. Defects of vision were discovered in 3.82% in the North and 2.68% in the South. Inflammatory conditions of the eye were found in 0.53% in the North and 0.4% in the South. Enlarged tonsils were present in 7.68% in the North and 8.55% in the South. Adenoid vegetations were discovered in 10.3% in the North and 12.82% in the South. Defects of hearing were uncommon, being present in only a little over ¼% of the children examined. Cardiac defects were more common, being present in 1.66% of the children in the North and 1.27% in the South. There were actually 22 cases of mitral stenosis, 86 of mitral regurgitation, and 8 of aortic disease.

The details of the examination of school children in Townsville are given in Dr. Nisbet's report. From the figures it appears that visual defects were discovered in 203 children out of a total of 1,013, but in 143 the degree of the error was slight. Twenty children were suffering from adenoid vegetations, a further 80 from adenoid vegetations and enlarged tonsils, and a still further 79 from enlarged tonsils. Mental deficiency was present in 42 children, anæmia in 64, and "physical defects" in 256. The heads of the children were verminous in 33 instances. It is probable that in the majority of cases these defects were but slight, inasmuch as only 250 notices were sent to parents, whereas 777 defects were detected. The physical defects included 175 cases of knock-knee, 21 of bow-legs, 13 of pigeon chests, 12 of infantile paralysis, etc.

Dr. Clifford Croll does not include the result of his inspections in his brief report

Ophthalmic Work.

The prevalence of blight and trachoma in certain parts of the State has rendered it imperative that special precautions should be taken to deal with this serious matter. Dr. Douglas Rodger, the Ophthalmic Inspector of Schools, has this department under his care. He visited no less than 73 schools, travelling over 10,000 miles by train, boat, motor car and coach, and examined 4,786 children. Dr. Rodger gives an excellent exposition of the form of trachoma met with in Queensland. The cases usually begin in the form of acute blight originating from infection carried by flies or by a common towel. If no treatment is applied recovery usually takes place in about a fortnight, and the eye is normal, save for a slightly weakened condition. It is, however, more susceptible to a second attack, and after this has taken place the susceptibility is found to be increased. After a number of attacks the eye drifts into a state of slight chronic inflammation, and later on granulations make their appearance. Dr. Rodger is convinced that trachoma is due to neglect and dirt, and that the prophylaxis is both simple and effective. The eye should be washed out with a solution of boric acid, either alone or combined with zinc sulphate. The difficulty in applying prophylactic measures has its origin in the obstinacy of ignorant parents.

Of the 4,784 children examined, 341 were found to be suffering from trachoma and 78 from an eye condition which may have been trachoma. The incidence expressed as percentages was 7.12 of trachoma and 1.62 of doubtful trachoma. In the previous year the percentages were 9.46 and 1.87. In 47 of the cases of undoubted trachoma the cornea was implicated. The disease exists on the northern line west of Torrens Creek, on the central line in the neighbourhood of Alpha, and in the southern district a few isolated cases occurred between Miles and Mitchell. All the country west of a line drawn through these towns is affected. The trouble is most marked in blacksoil and salt-pan country. The bush fly is very numerous in both, as compared with ironstone ridge and desert country.

Dr. Rodger deals in some detail with the condition of vision of the children examined, more especially of those affected with trachoma.

A system known as the "ophthalmic grant" has been devised for dealing with these cases of trachoma. The local practitioners undertake to accord free treatment of those children who are found by the Ophthalmic Inspector to be trachomatous. The system works very well, but is limited in its utility by the attitude of some of the dirtiest of the parents. Dr. Rodger hopes that an examination for trachoma will be carried out by a medical man of all new pupils on enrolment. Should a case be detected, the admission into the school should be refused until cure is effected. He carries out an annual inspection of all the school children in the affected districts; the practitioners receiving the ophthalmic grant carry out a quarterly inspection, and the head teacher is required to notify any eye complaint in school children on their transference to another school.

School Buildings.

In her report, Dr. Bourne states that the new school buildings visited by her were satisfactory from the point of view of lighting, ventilation and floor space. On the other hand the lighting in the old schools was bad. In many cases the walls needed lining, the sanitary conditions required attention, and structural alterations were necessary to exclude small animals. It appears, however, that the defective conditions of the buildings are gradually being reduced. She reports a large number of cesspits, and associates the spread of ankylostomiasis to carelessness in the matter of sanitation. No reference is made in any of the other reports to the hygienic conditions of the schools.

Physical Education.

In the main report of the Secretary reference is made to the State Schools Amateur Swimming Association, which was instituted in 1908 by a number of metropolitan school teachers. Thirty-four clubs for boys have been established under the auspices of the Association. In 1911 a State School Girls' Amateur Swimming Association was formed, and subsequently 28 swimming schools were affiliated with this organization. Swimming is taught as well as life-saving. The records of these clubs and schools contain evidence of the success of this movement, both from the point of view of physical culture and from that of life-saving.

Dental Inspection.

The inspection of the school childrens' teeth is undertaken by a Chief Dental Inspector and by two Assistant Dental Inspectors. The three reports show a commendable amount of activity of these three officers. In connexion with the inspection treatment is carried out at the Dental Hospital, and in the country schools efforts are directed toward the enlightenment of children and parents in regard to the importance of the care of the teeth.

Treatment of Defects.

The system employed in Queensland for the removal of remedial defects is incomplete, but as far as it goes it appears to be satisfactory. The parents are notified of the defects discovered in their children, and are urged to have treatment applied without delay. In those cases in which the parents are unable to pay for the treatment the State defrays the cost. Dr. Sweet shows that in 30.34% of the children treatment was applied within two months of the notice being given to the parents. A reminder by the teacher at the end of two months is said to have acted as a stimulus to those who were procrastinating. The method adoption in the case of trachoma has already been dealt with, as has the provision of treatment for dental defects. A nurse accompanies the Medical Inspector, but it is not clear from the reports whether these nurses undertake the work of "following up."

Public Health.

THE HEALTH OF VICTORIA.

The following notifications have been received by the Department of Public Health, Victoria, during the week ending February 13, 1916:—

	Metropolitan. Cs.	Dths.	Rest of State. Cs.	Dths.	Total. Cs.	Dths.
Diphtheria	51	1	30	1	81	2
Scarlatina	8	—	8	—	16	—
Enteric Fever	6	1	20	2	26	2
Pulmonary Tuberculosis	27	3	10	4	37	7

The following is the number of cases of cerebro-spinal meningitis notified to the Board during the week ending February 13, 1916:—

	Metropolitan Area. Cases.	Rural Districts. Cases.	Totals. Cases.
Civil	2	1	3

SMALL-POX IN NEW SOUTH WALES.

The following cases of small-pox have been reported to the Department of Public Health, New South Wales, during the week ending February 20, 1916:—

	Cases.
Newcastle and surrounding district	2

THE HEALTH OF NEW SOUTH WALES.

The following notifications have been received by the Department of Public Health, New South Wales, during the month of January, 1916:—

Disease.	Metropolitan. 1916. Cs.	Dths.	1915. Cs.	Dths.	Hunter River District. 1916. Cs.	Dths.	1915. Cs.	Dths.	Remainder of State. 1916. Cs.	Dths.	1915. Cs.	Dths.	Total. 1916. Cs.	Dths.	1915. Cs.	Dths.
Enteric Fever	68	9	67	4	20	2	21	—	137	8	111	9	225	19	199	13
Scarlatina	285	1	48	—	13	—	10	—	369	4	68	—	667	5	126	—
Diphtheria	289	5	173	2	25	—	15	1	339	7	186	8	653	12	374	11
Cerebro-Spinal Meningitis	5	3	—	—	—	—	—	—	1	1	—	—	6	4	—	—
Infantile Paralysis	38	1	1	—	—	—	—	—	3	1	—	—	41	1	1	—
Pulmonary Tuberculosis	129	12	—	—	1	2	—	—	—	—	—	—	130	14	—	—
Malaria	9	—	—	—	—	—	—	—	—	—	—	—	9	—	—	—

The following are the notifications received by the Department of Public Health, New South Wales, for the week ending February 5, 1916:—

	Metropolitan Combined Districts. Cs.	Dths.	Hunter River Combined Districts. Cs.	Dths.	Remainder of State. Cs.	Dths.	Total. Cs.	Dths.
Enteric Fever	21	2	3	—	48	1	72	3
Scarlatina	83	—	7	—	62	—	152	—
Diphtheria	82	1	2	—	58	1	142	2
C'bro-Sp'l Menin.	2	—	—	—	1	1	3	2
Inf'ntile Paralysis	13	—	—	—	1	—	14	—
Pul. Tuberculosis	27	4	—	1	—	—	27	5
Malaria	2	—	—	—	—	—	2	—

The following notifications have been received by the Department of Public Health, New South Wales, during the week ending February 12, 1916:—

	Metropolitan Combined Districts. Cs.	Dths.	Hunter River Combined Districts. Cs.	Dths.	Remainder of State. Cs.	Dths.	Total. Cs.	Dths.
Enteric Fever	26	3	6	1	34	5	66	9
Scarlatina	64	—	5	—	94	2	163	2
Diphtheria	89	—	8	—	68	2	165	2
C'bro-Sp'l Menin.	—	1	—	—	—	—	—	1
Inf'ntile Paralysis	12	—	2	—	1	—	15	—
Pul. Tuberculosis	22	1	2	—	—	—	24	1
Malaria	1	—	—	—	—	—	1	—

INFECTIVE DISEASES IN QUEENSLAND.

The following notifications have been received by the Department of Public Health, Queensland, during the week ending February 12, 1916:—

Disease.	No. of Cases.
Diphtheria	22
Cerebro-Spinal Meningitis	3
Phthisis	10
Enteric Fever	56
Scarlet Fever	10
Erysipelas	2
Malaria	2
Chicken-pox	4
Puerperal Fever	1
Total	111

THE HEALTH OF AUCKLAND.

The following notifications have been received from the District Health Officer of Auckland, for the month of January, 1916:—

	City. Cases.	Suburbs. Cases.	Country Districts. Cases.	Total. Cases.
Scarlatina	16	9	5	30
Diphtheria	4	4	26	34
Enteric Fever	2	5	30	37
Tuberculosis	9	8	7	24
Blood-poisoning	2	—	1	3
Infantile Paralysis	21	43	10	74
Cerebro-Spinal Meningitis	1	—	14	15
Hydatids	—	—	1	1

INFECTIVE DISEASES IN WESTERN AUSTRALIA.

The following notifications have been received by the Department of Public Health, Western Australia, during the week ending February 5, 1916:—

District.	Enteric Fever. Cases.	Diphtheria. Cases.	Phthisis. Cases.	Erysipelas. Cases.	Ophthalmia. Cases.
Cottesloe Beach	—	—	1	—	—
Fremantle	—	—	—	—	1
Perth	2	3	2	—	1
Midland Junc'n	1	1	—	—	—
Kalgoorlie	1	1	1	—	—
Nedlands	1	—	—	—	—
Bunbury	—	1	—	—	—
Comet Vale	—	—	1	—	—
North Dandalup	1	—	—	—	—
Palmyra	—	—	—	1	—
York	—	1	1	—	—
Sandstone	—	—	1	—	—
Wagin	1	—	—	—	—
Narrogin	—	—	1	—	—
Osborne Park	—	1	—	—	—
Totals	7	8	8	1	2

Correspondence.

WHITE AUSTRALIA PROBLEM.

Sir,—The other impediment to be dealt with, before discussing the question of race evolution, is the opposition of academic authority. Academic authority put on thumbscrews rather than look through a telescope and see that worlds were round; and threatened legal proceedings rather than look through a spectroscope and determine the properties of human pigment. No doubt such an antagonism is invaluable; it presents oblivion and bestows the hallmark of originality. But what is the last infirmity of its noble mind? As an instance of the academic mind, what hope is there of convincing Dr. Pern? Facts have been put before him as accurate as the multiplication table, yet he denies them, and quotes Darwin, when he may, with as much reason, have quoted the Biblical narrative of the curse of Ham. If the lives of great men all remind us of any one thing, it is, not to think as they say, but to do as they did. They thought for themselves.

This matter of pigment has been before our academic authorities for several years. Why are they so persistently silent? Is it that they have not yet informed themselves of the elementary physics necessary to discuss the subject intelligently? It is their ignorance of these simple data and their unwillingness to learn that has not only led them into their opposition of the truth, but has also led them to delude the Government in its policy and to beguile it into extravagant and wasteful enterprises, while at the same

time, with the aid of the press, to befool the people in confirming them in their errors and prejudice.

If Australia ever needed the truth, she needs it now. Let these academic authorities make the *amende honorable* and establish it.

Yours, etc.,

M.B. (Melb.).

February 19, 1916.

Proceedings of the Australasian Medical Boards.

QUEENSLAND.

Duncan George Meston, M.B. (Syd.), has been registered under the provisions of the "Medical Act, 1867," as a legally qualified medical practitioner.

Medical Appointments.

Dr. R. G. Ruddle has been appointed Officer of Health for the Daylesford Borough, Victoria, in place of Dr. E. E. Hutchinson (resigned).

Dr. R. A. Manly has been appointed Officer of Health for the Werribee Shire, Victoria, in place of Dr. Adcock (resigned).

Dr. J. Johnston has been appointed Acting Permanent Head, Department of Public Health, Victoria, and Acting Medical Inspector of the Board of Health, during the absence of Dr. E. Robertson.

Dr. E. R. Heffernan has been appointed Acting Public Vaccinator of the Metropolitan District of Victoria.

Dr. H. H. F. Martell has been appointed Public Vaccinator for the North-Western District of Victoria, in place of the late Dr. W. A. H. Barrett.

Dr. James Webb has been appointed Public Vaccinator of the Metropolitan District of Victoria, during the absence of Dr. A. H. Sturdee on military service.

Dr. S. G. Skewes has been appointed Public Vaccinator for the North-Eastern District of Victoria, during the absence of Dr. L. S. Kidd on military service.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xiii.

Texas District Hospital, Queensland, Medical Officer.

Broken Hill and District Hospital, Resident Medical Officers.

Children's Hospital, Perth, Resident Medical Officer.

Mater Misericordiæ Hospital, North Sydney, Honorary Anæsthetist.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
WESTERN AUSTRALIA. (Hon. Sec., 230 St. George's Terrace, Perth.)	Swan District Medical Officer. All Contract Practice Appointments in Western Australia.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Department of Public Instruction—New Appointments as Medical Officer, Ophthalmic Surgeon, Ear, Nose and Throat Surgeon, Physician. Australian Natives' Association. Balmain United F.S. Dispensary. Canterbury United F.S. Dispensary. Goulburn F.S. Association. Leichhardt and Petersham Dispensary. M.U. Oddfellows' Med. Inst., Elizabeth Street, Sydney. Marrickville United F.S. Dispensary. N.S.W. Ambulance Association and Transport Brigade. North Sydney United F.S. People's Prudential Benefit Society. Phœnix Mutual Provident Society. F.S. Lodges at Casino. F.S. Lodges at Lithgow. F.S. Lodges at Mudgee (except A.H.C.G., M.U.I.O.O.F., U.A.O.D., and P.A.F.S.). F.S. Lodges at Orange. F.S. Lodges at Parramatta, Penrith, Auburn, and Lidcombe. Newcastle Collieries — Killingworth, Seaham Nos. 1 and 2, West Wallsend.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.)	The F.S. Medical Assoc., Incorp., Adelaide.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Brisbane United F.S. Institute. Croydon Hospital. Laidley Hospital, Medical Officer.
NEW ZEALAND: WELLINGTON DIVISION. Hon. Sec., Wellington.)	F.S. Lodges, Wellington, N.Z.

Diary for the Month.

Feb. 29.—N.S.W. Branch, Medical Politics Committee, Organization and Science Committee.
Mar. 1.—Vic. Branch, B.M.A., Branch.
Mar. 3.—Queensland Branch, B.M.A., Branch.
Mar. 8.—South Sydney Med. Assoc. (N.S.W.), Annual.
Mar. 9.—Vic. Branch, B.M.A., Council.
Mar. 10.—South Aust. Branch, B.M.A., Council.
Mar. 15.—West. Aust. Branch, B.M.A., General.
Mar. 16.—N.S.W. Branch (Last day for Nomination of Candidates for Election of Council).
Mar. 21.—N.S.W. Branch, B.M.A., Executive and Finance Committee, Ethics Committee.
Mar. 24.—Q. Branch, B.M.A., Council.
Mar. 28.—N.S.W. Branch, B.M.A., Medical Politics Committee, Organization and Science Committee.
Mar. 29.—Vic. Branch, B.M.A., Council.
Mar. 30.—South Aust. Branch, B.M.A., Branch.
Mar. 30.—N.S.W. Branch (Return of Ballot Papers for Election of Council of Branch).
Mar. 31.—N.S.W. Branch, B.M.A., Annual Meeting.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this Journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated.

All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney, New South Wales.